

Express Mail Label No.: EL831679664US

Date of Deposit: January 30, 2002

Attorney Docket No. 21402-163 (CURA-463)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Kekuda et al.
SERIAL NUMBER: 09/981,566 EXAMINER: Not Yet Assigned
FILING DATE: October 16, 2001 ART UNIT: 1653
FOR: NOVEL GPCR-LIKE PROTEINS AND NUCLEIC ACIDS ENCODING
SAME

BOX MISSING PARTS

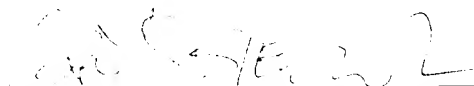
Assistant Commissioner for Patents
Washington, D.C. 20231

**STATEMENT IN SUPPORT OF COMPUTER READABLE
FORM SUBMISSION UNDER 37 C.F.R. § 1.821(f)**

I hereby state that the content of the paper and computer readable forms of the Sequence Listing, submitted in the above-identified application in accordance with 37 C.F.R. § 1.821(c) and 1.821(e), respectively, are the same. No new matter is added.

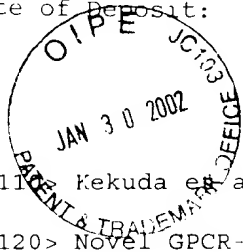
Respectfully submitted,

January 30, 2002



Gregory Sieczkiewicz, Reg. No. 48,223
Agent for Applicant
c/o Mintz, Levin
One Financial Center
Boston, MA 02111
Telephone (617) 542 6000
Fax : (617) 542 2241

Date of Deposit: January 30, 2002



SEQUENCE LISTING

<111> Kekuda et al.

<120> Novel GPCR-like Proteins and Nucleic Acids Encoding
Same

<130> 21402-163

<140> 09/981,566

<141> 2001-10-16

<150> 60/240,704

<151> 2000-10-16

<150> 60/262,159

<151> 2001-01-17

<150> 60/263,340

<151> 2001-01-22

<150> 60/264,118

<151> 2001-01-25

<150> 60/308,203

<151> 2001-07-27

<150> 60/243,497

<151> 2000-10-26

<150> 60/244,542

<151> 2000-10-31

<150> 60/269,031

<151> 2001-02-15

<150> 60/245,484

<151> 2000-11-03

<150> 60/255,017

<151> 2000-12-12

<150> 60/263,216

<151> 2001-01-22

<150> 60/268,225

<151> 2001-02-12

<160> 209

<170> PatentIn Ver. 2.1

<210> 1

<211> 964

<212> DNA

<213> Homo sapiens

<400> 1
ggccccatac tgtggatcat ggcaaatctg agccagccct ccgaatttgt cctcttgggc 60
ttctctcct ttggtgagct gcaggccctt ctgtatggcc ccttcctcat gctttatctt 120
ctcgccttca tgggaaacac catcatcata gttatggtca tagctgacac ccacctacat 180
acacccatgt acttcttctt gggcaatttt tccctgctgg agatcttggg aaccatgact 240
gcagtgccea ggatgctctc agacctgttg gtccccaca aagtcattac cttcactggc 300
tgcattggcc agttctactt ccacttttcc ctgggggtcca cctccttctt catcctgaca 360
gacatggccc ttgatcgctt tgtggccatc tgccaccac tgcgctatgg cactctgatg 420
agccgggcta tgtgtgtcca gctggctggg gctgcctggg cagctccttt cctagccatg 480
gtaccactg tctctctccg agctcatctt gattactgcc atggcgacgt catcaaccac 540
ttcttctgtg acaatgaacc tctcctgcag ttgtcatgct ctgacactcg cctgttggaa 600
ttctgggact ttctgatggc cttgaccttt gtctcagct ccttcctggg gaccctcatc 660
tcctatggct acatagtac cactgtgctg cggatccct ctgccagcag ctgccagaag 720
gctttctcca cttgcgggtc tcacctcaca ctggtcttca tcggctacag tagtaccatc 780
tttctgtatg tcaggcctgg caaagctcac tctgtgcaag tcagggaagg cgtggccttg 840
gtgacttcag ttctacccc ctttctcaat cctttatcc ttaccttctg caatcagaca 900
gttaaacag tgctacaggg gcagatgcag aggtgaaag gcctttgcaa ggcacaatga 960
tgag 964

<210> 2
<211> 313
<212> PRT
<213> Homo sapiens

<400> 2
Met Ala Asn Leu Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser
1 5 10 15
Ser Phe Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu
20 25 30
Tyr Leu Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile
35 40 45
Ala Asp Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe
50 55 60
Ser Leu Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu
65 70 75 80
Ser Asp Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met
85 90 95
Val Gln Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile
100 105 110
Leu Thr Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu
115 120 125
Arg Tyr Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly
130 135 140
Ala Ala Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser
145 150 155 160
Arg Ala His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe

165										170					175				
Cys	Asp	Asn	Glu	Pro	Leu	Leu	Gln	Leu	Ser	Cys	Ser	Asp	Thr	Arg	Leu				
			180					185					190						
Leu	Glu	Phe	Trp	Asp	Phe	Leu	Met	Ala	Leu	Thr	Phe	Val	Leu	Ser	Ser				
		195					200					205							
Phe	Leu	Val	Thr	Leu	Ile	Ser	Tyr	Gly	Tyr	Ile	Val	Thr	Thr	Val	Leu				
		210				215					220								
Arg	Ile	Pro	Ser	Ala	Ser	Ser	Cys	Gln	Lys	Ala	Phe	Ser	Thr	Cys	Gly				
225					230					235					240				
Ser	His	Leu	Thr	Leu	Val	Phe	Ile	Gly	Tyr	Ser	Ser	Thr	Ile	Phe	Leu				
				245					250					255					
Tyr	Val	Arg	Pro	Gly	Lys	Ala	His	Ser	Val	Gln	Val	Arg	Lys	Val	Val				
			260					265					270						
Ala	Leu	Val	Thr	Ser	Val	Leu	Thr	Pro	Phe	Leu	Asn	Pro	Phe	Ile	Leu				
		275					280					285							
Thr	Phe	Cys	Asn	Gln	Thr	Val	Lys	Thr	Val	Leu	Gln	Gly	Gln	Met	Gln				
		290				295					300								
Arg	Leu	Lys	Gly	Leu	Cys	Lys	Ala	Gln											
305					310														

<210> 3
 <211> 971
 <212> DNA
 <213> Homo sapiens

<400> 3
 cccatactg tggatcatgg caaggcacia tgatgagcca gccctccgaa tttgtcctct 60
 tgggcttctc ctcttttggg gagctgcagg cccttctgta tggcccccttc ctcattgcttt 120
 atcttctcgc ctcatggga aacaccatca tcatagttat ggcatagct gacacccacc 180
 tacatacacc catgtacttc ttcttgggca atttttccct gctggagatc ttggtaacca 240
 tgactgcagt gccaggatg ctctcagacc tgttgggtccc ccacaaagtc attaccttca 300
 ctggctgcat ggtccagttc tacttccact ttcccttggg gtccacctcc ttctcatcc 360
 tgacagacat ggcccttgat cgctttgtgg ccacttgcca ccactgcgc tatggcactc 420
 tgatgagcgg ggctatgtgt gtccagctgg ctggggctgc ctgggcagct cctttcctag 480
 ccatgggtacc cactgtcctc tcccgagctc atcttgatta ctgccatggc gacgtcatca 540
 accacttctt ctgtgacaat gaacctctcc tgcagttgtc atgctctgac actcgctgt 600
 tgggaattctg ggactttctg atggccatga cctttgtcct cagctccttc ctggtgacct 660
 tcatctcata tggctacata gtgaccactg tgcctgggat cccctctgcc agcagctgcc 720
 agaaggcttt ctccacttgc ggtctcacc tcacactggg ctccatcggc tacagtagta 780
 ccactcttct gtatgtcagg cctggcaaag ctactctgt gcaagtcagg aaggctgtgg 840
 ccttggtgac ttcatgtctc acccccttcc tcaatccctt tacccttacc ttctgcaatc 900
 agacagttaa aacagtgcata caggggcaga tgcagaggct gaaaggcctt tgcaaggcac 960
 aatgatgagc c 971

<210> 4
 <211> 311

<212> PRT
<213> Homo sapiens

<400> 4

Met	Met	Ser	Gln	Pro	Ser	Glu	Phe	Val	Leu	Leu	Gly	Phe	Ser	Ser	Phe
1				5					10					15	
Gly	Glu	Leu	Gln	Ala	Leu	Leu	Tyr	Gly	Pro	Phe	Leu	Met	Leu	Tyr	Leu
			20					25					30		
Leu	Ala	Phe	Met	Gly	Asn	Thr	Ile	Ile	Ile	Val	Met	Val	Ile	Ala	Asp
		35					40					45			
Thr	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Gly	Asn	Phe	Ser	Leu
	50					55					60				
Leu	Glu	Ile	Leu	Val	Thr	Met	Thr	Ala	Val	Pro	Arg	Met	Leu	Ser	Asp
65					70					75					80
Leu	Leu	Val	Pro	His	Lys	Val	Ile	Thr	Phe	Thr	Gly	Cys	Met	Val	Gln
				85					90					95	
Phe	Tyr	Phe	His	Phe	Ser	Leu	Gly	Ser	Thr	Ser	Phe	Leu	Ile	Leu	Thr
			100					105					110		
Asp	Met	Ala	Leu	Asp	Arg	Phe	Val	Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr
		115					120					125			
Gly	Thr	Leu	Met	Ser	Arg	Ala	Met	Cys	Val	Gln	Leu	Ala	Gly	Ala	Ala
	130					135					140				
Trp	Ala	Ala	Pro	Phe	Leu	Ala	Met	Val	Pro	Thr	Val	Leu	Ser	Arg	Ala
145					150					155					160
His	Leu	Asp	Tyr	Cys	His	Gly	Asp	Val	Ile	Asn	His	Phe	Phe	Cys	Asp
				165					170					175	
Asn	Glu	Pro	Leu	Leu	Gln	Leu	Ser	Cys	Ser	Asp	Thr	Arg	Leu	Leu	Glu
			180					185					190		
Phe	Trp	Asp	Phe	Leu	Met	Ala	Met	Thr	Phe	Val	Leu	Ser	Ser	Phe	Leu
		195					200					205			
Val	Thr	Leu	Ile	Ser	Tyr	Gly	Tyr	Ile	Val	Thr	Thr	Val	Leu	Arg	Ile
	210					215						220			
Pro	Ser	Ala	Ser	Ser	Cys	Gln	Lys	Ala	Phe	Ser	Thr	Cys	Gly	Ser	His
225					230					235					240
Leu	Thr	Leu	Val	Phe	Ile	Gly	Tyr	Ser	Ser	Thr	Ile	Phe	Leu	Tyr	Val
			245						250				255		
Arg	Pro	Gly	Lys	Ala	His	Ser	Val	Gln	Val	Arg	Lys	Val	Val	Ala	Leu
			260					265					270		
Val	Thr	Ser	Val	Leu	Thr	Pro	Phe	Leu	Asn	Pro	Phe	Ile	Leu	Thr	Phe
		275					280					285			

Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln Arg Leu
 290 295 300

Lys Gly Leu Cys Lys Ala Gln
 305 310

<210> 5
 <211> 971
 <212> DNA
 <213> Homo sapiens

<400> 5
 cccatactg tggatcatgg caaggcacia tgatgagcca gccctccgaa tttgtcctct 60
 tgggcttctc ctcccttggg gagctgcagg cccttctgta tggccccttc ctcatgcttt 120
 atcttctcgc cttcatggga aacaccatca tcatagttat ggtcatagct gacacccacc 180
 tacatacacc catgtacttc ttcttgggca atttttccct gctggagatc ttggtaacca 240
 tgactgcagt gcccaggatg ctctcagacc tgttgggtccc ccacaaagtc attaccttca 300
 ctggctgcat ggtccagttc tacttccact tttccctggg gtccacctcc ttctcatcc 360
 tgacagacat ggcccttgat cgcttctgtg ccactctgcca cccactgcgc tatggcactc 420
 tgatgagccg ggctatgtgt gtccagctgg ctggggctgc ctgggcagct cctttcctag 480
 ccatggtacc cactgtcctc tcccagctc atcttgatta ctgccatggc gacgtcatca 540
 accacttctt ctgtgacaat gaacctctcc tgcagttgtc atgctctgac actcgccctgt 600
 tggaattctg ggactttctg atggccttga cctttgtcct cagctccttc ctggtgaccc 660
 tcatctccta tggctacata gtgaccactg tgctgcggat cccctctgcc agcagctgcc 720
 agaaggcttt ctccacttgc ggtctcacc tcacactggg cttcatcggc tacagtagta 780
 ccacttttct gtatgtcagg cctggcaaa ctcactctgt gcaagtcagg aaggctcgtgg 840
 ccttgggtgac ttcagttctc acccccttcc tcaatccctt tatccttacc ttctgcaatc 900
 agacagttaa aacagtgcta caggggcaga tgcagaggct gaaaggcctt tgcaaggcac 960
 aatgatgagc c 971

<210> 6
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 6
 Met Met Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser Ser Phe
 1 5 10 15

Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu
 20 25 30

Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile Ala Asp
 35 40 45

Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu
 50 55 60

Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu Ser Asp
 65 70 75 80

Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met Val Gln
 85 90 95

Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr
100 105 110
Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu Arg Tyr
115 120 125
Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly Ala Ala
130 135 140
Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser Arg Ala
145 150 155 160
His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe Cys Asp
165 170 175
Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu
180 185 190
Phe Trp Asp Phe Leu Met Ala Leu Thr Phe Val Leu Ser Ser Phe Leu
195 200 205
Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu Arg Ile
210 215 220
Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly Ser His
225 230 235 240
Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val
245 250 255
Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val Ala Leu
260 265 270
Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe
275 280 285
Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln Arg Leu
290 295 300
Lys Gly Leu Cys Lys Ala Gln
305 310

<210> 7
<211> 992
<212> DNA
<213> Homo sapiens

<400> 7
ctgtcttttg tttctcttgc atgcagggcc ccatactgtg gatcatggca aatctgagcc 60
agccctccga atttgtcctc ttgggcttct cctcctttgg tgagctgcag gcccttctgt 120
atggccctt cctcatgctt tatcttctcg ccttcattgg aaacaccatc atcatagtta 180
tggtcatagc tgacaccac ctacatacac ccatgtactt ctctctgggc aatttttccc 240
tgctggagat cttggttaacc atgactgcag tgcccaggat gctctcagac ctggttggtcc 300
cccacaaagt cattaccttc actggctgca tggctccagt ctacttccac ttttccctgg 360
ggtccacctc cttcctcatc ctgacagaca tggcccttga tcgctttgtg gccatctgcc 420
accactgcg ctatggcact ctgatgagcc gggctatgtg tgtccagctg gctggggctg 480

```

cctgggcagc tcctttccta gccatggtac ccactgtcct ctcccagagct catcttgatt 540
actgccatgg cgacgtcatc aaccacttct tctgtgacaa tgaacctctc ctgcagttgt 600
catgctctga cactcgccctg ttggaattct gggactttct gatggccttg acctttgtcc 660
tcagctcctt cctggtgacc ctcatctcct atggctacat agtgaccact gtgctgcgga 720
tcccctctgc cagcagctgc cagaaggctt tctccacttg cgggtctcac ctcacactgg 780
tcttcacatg ctacagtagt accatctttc tgtatgtcag gcctggcaaa gctcactctg 840
tgcaagtcag gaaggctgtg gccttggtga cttcagttct caccctctt ctcaatccct 900
ttatccttac cttctgcaat cagacagtta aaacagtgtc acaggggcag atgcagaggc 960
tgaaaggcct ttgcaaggca caatgatgag cc 992

```

<210> 8
 <211> 327
 <212> PRT
 <213> Homo sapiens

```

<400> 8
Val Phe Cys Phe Ser Cys Met Gln Gly Pro Ile Leu Trp Ile Met Ala
  1                      5                      10                      15

Asn Leu Ser Gln Pro Ser Glu Phe Val Leu Leu Gly Phe Ser Ser Phe
      20                      25                      30

Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu
      35                      40                      45

Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile Ala Asp
      50                      55                      60

Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu
      65                      70                      75                      80

Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu Ser Asp
      85                      90                      95

Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met Val Gln
      100                      105                      110

Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr
      115                      120                      125

Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu Arg Tyr
      130                      135                      140

Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly Ala Ala
      145                      150                      155                      160

Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser Arg Ala
      165                      170                      175

His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe Cys Asp
      180                      185                      190

Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu
      195                      200                      205

Phe Trp Asp Phe Leu Met Ala Leu Thr Phe Val Leu Ser Ser Phe Leu

```


210	215	220
Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu Arg Ile		
225	230	235 240
Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly Ser His		
	245	250 255
Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val		
	260	265 270
Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val Ala Leu		
	275	280 285
Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe		
	290	295 300
Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln Arg Leu		
305	310	315 320
Lys Gly Leu Cys Lys Ala Gln		
	325	

<210> 9
 <211> 971
 <212> DNA
 <213> Homo sapiens

<400> 9

tgcaaggccc	catactgtgg	atcatggcaa	atctgagcca	gccctccgaa	tttgtcctct	60
tgggcttctc	ctcctttggt	gagctgcagg	cccttctgta	tggccccctc	ctcatgcttt	120
atcttctcgc	cttcatggga	aacaccatca	tcatagttat	ggtcatagct	gacacccacc	180
tacatacacc	catgtacttc	ttcctgggca	atctttccct	gctggagatc	ttggtaacca	240
tgactgcagt	gcccaggatg	ctctcagacc	tggttggtccc	ccacaaagtc	attaccttca	300
ctggctgcat	ggtccagttc	tacttccact	tttccctggg	gtccacctcc	ttcctcatcc	360
tgacagacat	ggcccttgat	cgctttgtgg	ccatctgcca	ccactgcgc	tatggcactc	420
tgatgagccg	ggctatgtgt	gtccagctgg	ctggggctgc	ctgggcagct	cctttcctag	480
ccatggtacc	cactgtcctc	tcccagctc	atcttgatta	ctgccatggc	gacgtcatta	540
accacttctt	ctgtgacaat	gaacctctcc	tgcagttgtc	atgctctgac	actcgctgt	600
tgggaattctg	ggactttctg	atgggtcttga	cctttgtcct	cagctccttc	ctggtgacct	660
tcatctccta	tggctacata	gtgaccactg	tgctgcggat	cccccttgcc	agcagctgcc	720
agaaggcttt	ctccacttgc	gggtctcacc	tcacactggg	cttcatcggc	tacagtagta	780
ccatctttct	gtatgtcagg	cctggcaaag	ctcactctgt	gcaagtcagg	aaggctgtgg	840
ccttggtgac	ttcagttctc	accccccttc	tcaatccctt	tatccttacc	ttctgcaatc	900
agacagttaa	aacagtgcta	caggggcaga	tgcagaggct	gaaaggcctt	tgcaaggcac	960
aatgatgagc	c					971

<210> 10
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 10

Met	Ala	Asn	Leu	Ser	Gln	Pro	Ser	Glu	Phe	Val	Leu	Leu	Gly	Phe	Ser
1				5					10					15	

Ser Phe Gly Glu Leu Gln Ala Leu Leu Tyr Gly Pro Phe Leu Met Leu
 20 25 30
 Tyr Leu Leu Ala Phe Met Gly Asn Thr Ile Ile Ile Val Met Val Ile
 35 40 45
 Ala Asp Thr His Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Phe
 50 55 60
 Ser Leu Leu Glu Ile Leu Val Thr Met Thr Ala Val Pro Arg Met Leu
 65 70 75 80
 Ser Asp Leu Leu Val Pro His Lys Val Ile Thr Phe Thr Gly Cys Met
 85 90 95
 Val Gln Phe Tyr Phe His Phe Ser Leu Gly Ser Thr Ser Phe Leu Ile
 100 105 110
 Leu Thr Asp Met Ala Leu Asp Arg Phe Val Ala Ile Cys His Pro Leu
 115 120 125
 Arg Tyr Gly Thr Leu Met Ser Arg Ala Met Cys Val Gln Leu Ala Gly
 130 135 140
 Ala Ala Trp Ala Ala Pro Phe Leu Ala Met Val Pro Thr Val Leu Ser
 145 150 155 160
 Arg Ala His Leu Asp Tyr Cys His Gly Asp Val Ile Asn His Phe Phe
 165 170 175
 Cys Asp Asn Glu Pro Leu Leu Gln Leu Ser Cys Ser Asp Thr Arg Leu
 180 185 190
 Leu Glu Phe Trp Asp Phe Leu Met Val Leu Thr Phe Val Leu Ser Ser
 195 200 205
 Phe Leu Val Thr Leu Ile Ser Tyr Gly Tyr Ile Val Thr Thr Val Leu
 210 215 220
 Arg Ile Pro Ser Ala Ser Ser Cys Gln Lys Ala Phe Ser Thr Cys Gly
 225 230 235 240
 Ser His Leu Thr Leu Val Phe Ile Gly Tyr Ser Ser Thr Ile Phe Leu
 245 250 255
 Tyr Val Arg Pro Gly Lys Ala His Ser Val Gln Val Arg Lys Val Val
 260 265 270
 Ala Leu Val Thr Ser Val Leu Thr Pro Phe Leu Asn Pro Phe Ile Leu
 275 280 285
 Thr Phe Cys Asn Gln Thr Val Lys Thr Val Leu Gln Gly Gln Met Gln
 290 295 300
 Arg Leu Lys Gly Leu Cys Lys Ala Gln
 305 310

<210> 11
 <211> 992
 <212> DNA
 <213> Homo sapiens

<400> 11
 ctgtcttttg tttctcttgc atgcaaggcc ccatactgtg gatcatggca aatctgagcc 60
 agccctccga atttgtcctc ttgggcttct cctccttttg tgagctgcag gcccttctgt 120
 atggccctt cctcatgctt tatcttctcg ccttcatggg aaacaccatc atcatagtta 180
 tggctcatagc tgacacccac ctacatacac ccattgtactt cttcctgggc aatttttccc 240
 tgctggagat cttggtaacc atgactgcag tgcccaggat gctctcagac ctggttggtcc 300
 cccacaaagt cattaccttc actggctgca tggccagtt ctacttccac ttttccctgg 360
 ggtccacctc cttcctcatc ctgacagaca tggcccttga tcgctttgtg gccatctgcc 420
 acccaatgcg ctatggcact ctgatgagcc gggctatgtg tgtccagctg gctggggctg 480
 cctgggcagc tcctttccta gccatgggtac ccactgtcct ctcccagct catcttgatt 540
 actgccatgg cgacgtcatt aaccacttct tctgtgacaa tgaacctctc ctgcagttgt 600
 catgctctga cactcgctg ttggaattct gggactttct gatggtcttg acctttgtcc 660
 tcagctcctt cctgggtgacc ctcatctcct atggctacat agtgaccact gtgctgcgga 720
 tccccctctgc cagcagctgc cagaaggctt tctccacttg cgggtctcac ctcacactgg 780
 tcttcatcgg ctacagtagt accatcttct tgtatgtcag gcctggcaaa gctcactctg 840
 tgcaagtcag gaaggctcgt gccttgggtga cttcagttct caccctctt ctcaatccct 900
 ttatccttac cttctgcaat cagacagtta aaacagtgt acaggggcag atgtagaggc 960
 tgaaaggcct ttgcaaggca caatgatgag cc 992

<210> 12
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 12
 Met Gln Gly Pro Ile Leu Trp Ile Met Ala Asn Leu Ser Gln Pro Ser
 1 5 10 15
 Glu Phe Val Leu Leu Gly Phe Ser Ser Phe Gly Glu Leu Gln Ala Leu
 20 25 30
 Leu Tyr Gly Pro Phe Leu Met Leu Tyr Leu Leu Ala Phe Met Gly Asn
 35 40 45
 Thr Ile Ile Ile Val Met Val Ile Ala Asp Thr His Leu His Thr Pro
 50 55 60
 Met Tyr Phe Phe Leu Gly Asn Phe Ser Leu Leu Glu Ile Leu Val Thr
 65 70 75 80
 Met Thr Ala Val Pro Arg Met Leu Ser Asp Leu Leu Val Pro His Lys
 85 90 95
 Val Ile Thr Phe Thr Gly Cys Met Val Gln Phe Tyr Phe His Phe Ser
 100 105 110
 Leu Gly Ser Thr Ser Phe Leu Ile Leu Thr Asp Met Ala Leu Asp Arg
 115 120 125

Phe Val Ala Ile Cys His Pro Leu Arg Tyr Gly Thr Leu Met Ser Arg
 130 135 140
 Ala Met Cys Val Gln Leu Ala Gly Ala Ala Trp Ala Ala Pro Phe Leu
 145 150 155 160
 Ala Met Val Pro Thr Val Leu Ser Arg Ala His Leu Asp Tyr Cys His
 165 170 175
 Gly Asp Val Ile Asn His Phe Phe Cys Asp Asn Glu Pro Leu Leu Gln
 180 185 190
 Leu Ser Cys Ser Asp Thr Arg Leu Leu Glu Phe Trp Asp Phe Leu Met
 195 200 205
 Val Leu Thr Phe Val Leu Ser Ser Phe Leu Val Thr Leu Ile Ser Tyr
 210 215 220
 Gly Tyr Ile Val Thr Thr Val Leu Arg Ile Pro Ser Ala Ser Ser Cys
 225 230 235 240
 Gln Lys Ala Phe Ser Thr Cys Gly Ser His Leu Thr Leu Val Phe Ile
 245 250 255
 Gly Tyr Ser Ser Thr Ile Phe Leu Tyr Val Arg Pro Gly Lys Ala His
 260 265 270
 Ser Val Gln Val Arg Lys Val Val Ala Leu Val Thr Ser Val Leu Thr
 275 280 285
 Pro Phe Leu Asn Pro Phe Ile Leu Thr Phe Cys Asn Gln Thr Val Lys
 290 295 300
 Thr Val Leu Gln Gly Gln Met
 305 310

<210> 13
 <211> 314
 <212> PRT
 <213> Mus musculus

<400> 13
 Met Met Asp Asn Leu Ser Ser Ala Thr Glu Phe Cys Leu Leu Gly Phe
 1 5 10 15
 Pro Gly Ser Gln Glu Leu His Tyr Ile Leu Phe Ala Ile Phe Phe Phe
 20 25 30
 Phe Tyr Ser Val Thr Leu Leu Gly Asn Met Val Ile Ile Ile Ile Val
 35 40 45
 Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Gly Asn
 50 55 60
 Leu Ser Leu Leu Glu Ile Leu Val Thr Thr Thr Ile Val Pro Leu Met
 65 70 75 80

Leu Trp Gly Leu Leu Leu Pro Gly Lys Gln Thr Ile Ser Leu Asn Gly
 85 90 95
 Cys Ile Ala Gln Leu Phe Leu Tyr Leu Ala Leu Gly Thr Thr Glu Phe
 100 105 110
 Ala Val Leu Gly Ala Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn
 115 120 125
 Pro Leu Arg Tyr Ser Val Ile Met Asn Ser Arg Thr Cys Ile Trp Val
 130 135 140
 Val Met Val Ser Trp Met Phe Gly Phe Leu Ser Glu Ile Trp Pro Val
 145 150 155 160
 Tyr Ala Thr Phe Gln Phe Thr Phe Cys Lys Ser Asn Leu Leu Asp His
 165 170 175
 Phe Tyr Cys Asp Arg Gly Gln Leu Leu Lys Leu Ser Cys Asn Glu Thr
 180 185 190
 Phe Leu Thr Glu Phe Ile Leu Phe Ile Met Ala Ile Phe Ile Ile Val
 195 200 205
 Gly Ser Leu Ile Pro Thr Ile Val Ser Tyr Thr Tyr Ile Ile Ser Thr
 210 215 220
 Ile Leu Lys Ile Pro Ser Ala Ser Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Phe Thr Phe Val Val Ile Gly Tyr Gly Thr Cys Leu
 245 250 255
 Phe Leu Tyr Val Lys Pro Lys Gln Thr Gln Ala Ala Glu Tyr Asn Arg
 260 265 270
 Val Ala Ser Leu Leu Val Ser Val Val Thr Pro Phe Leu Asn Pro Phe
 275 280 285
 Ile Phe Thr Leu Arg Asn Asp Lys Val Lys Glu Ala Leu Arg Asp Gly
 290 295 300
 Val Lys Arg Cys Cys Leu Leu Leu Arg Asp
 305 310

<210> 14
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 14
 Met Ala Asn Ser Thr Thr Val Thr Glu Phe Ile Leu Leu Gly Leu Ser
 1 5 10 15

Asp Ala Cys Glu Leu Gln Val Leu Ile Phe Leu Gly Phe Leu Leu Thr

20					25					30						
Tyr	Phe	Leu	Ile	Leu	Leu	Gly	Asn	Phe	Leu	Ile	Ile	Phe	Ile	Thr	Leu	
35					40					45						
Val	Asp	Arg	Arg	Leu	Tyr	Thr	Pro	Met	Tyr	Tyr	Phe	Leu	Arg	Asn	Phe	
50					55					60						
Ala	Met	Leu	Glu	Ile	Trp	Phe	Thr	Ser	Val	Ile	Phe	Pro	Lys	Met	Leu	
65					70					75					80	
Thr	Asn	Ile	Ile	Thr	Gly	His	Lys	Thr	Ile	Ser	Leu	Leu	Gly	Cys	Phe	
85					90					95						
Leu	Gln	Ala	Phe	Leu	Tyr	Phe	Phe	Leu	Gly	Thr	Thr	Glu	Phe	Phe	Leu	
100					105					110						
Leu	Ala	Val	Met	Ser	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	Pro	Leu	
115					120					125						
Arg	Tyr	Ala	Thr	Ile	Met	Ser	Lys	Arg	Val	Cys	Val	Gln	Leu	Val	Phe	
130					135					140						
Cys	Ser	Trp	Met	Ser	Gly	Leu	Leu	Leu	Ile	Ile	Val	Pro	Ser	Ser	Ile	
145					150					155					160	
Val	Phe	Gln	Gln	Pro	Phe	Cys	Gly	Pro	Asn	Ile	Ile	Asn	His	Phe	Phe	
165					170					175						
Cys	Asp	Asn	Phe	Pro	Leu	Met	Glu	Leu	Ile	Cys	Ala	Asp	Thr	Ser	Leu	
180					185					190						
Val	Glu	Phe	Leu	Gly	Phe	Val	Ile	Ala	Asn	Phe	Ser	Leu	Leu	Gly	Thr	
195					200					205						
Leu	Ala	Val	Thr	Ala	Thr	Cys	Tyr	Gly	His	Ile	Leu	Tyr	Thr	Ile	Leu	
210					215					220						
His	Ile	Pro	Ser	Ala	Lys	Glu	Arg	Lys	Lys	Ala	Phe	Ser	Thr	Cys	Ser	
225					230					235					240	
Ser	His	Ile	Ile	Val	Val	Ser	Leu	Phe	Tyr	Gly	Ser	Cys	Ile	Phe	Met	
245					250					255						
Tyr	Val	Arg	Ser	Gly	Lys	Asn	Gly	Gln	Gly	Glu	Asp	His	Asn	Lys	Val	
260					265					270						
Val	Ala	Leu	Leu	Asn	Thr	Val	Val	Thr	Pro	Thr	Leu	Asn	Pro	Phe	Ile	
275					280					285						
Tyr	Thr	Leu	Arg	Asn	Lys	Gln	Val	Lys	Gln	Val	Phe	Arg	Glu	His	Val	
290					295					300						
Ser	Lys	Phe	Gln	Lys	Phe	Ser	Gln	Thr								
305					310											

<210> 15
 <211> 317
 <212> PRT
 <213> Mus musculus

<400> 15
 Met Glu Gly Lys Asn Gln Thr Ala Pro Ser Glu Phe Ile Ile Leu Gly
 1 5 10 15
 Phe Asp His Leu Asn Glu Leu Gln Tyr Leu Leu Phe Thr Ile Phe Phe
 20 25 30
 Leu Thr Tyr Ile Cys Thr Leu Gly Gly Asn Val Phe Ile Ile Val Val
 35 40 45
 Thr Ile Ala Asp Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Gly
 50 55 60
 Asn Leu Ala Leu Ile Asp Ile Cys Tyr Thr Thr Thr Asn Val Pro Gln
 65 70 75 80
 Met Met Val His Leu Leu Ser Glu Lys Lys Ile Ile Ser Tyr Gly Gly
 85 90 95
 Cys Val Thr Gln Leu Phe Ala Phe Ile Phe Phe Val Gly Ser Glu Cys
 100 105 110
 Leu Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Ile Ala Ile Cys Lys
 115 120 125
 Pro Leu Arg Tyr Ser Phe Ile Met Asn Lys Ala Leu Cys Ser Trp Leu
 130 135 140
 Ala Ala Ser Cys Trp Thr Cys Gly Phe Leu Asn Ser Val Leu His Thr
 145 150 155 160
 Val Leu Thr Phe His Leu Pro Phe Cys Gly Asn Asn Gln Ile Asn Tyr
 165 170 175
 Phe Phe Cys Asp Ile Pro Pro Leu Leu Ile Leu Ser Cys Gly Asp Thr
 180 185 190
 Ser Leu Asn Glu Leu Ala Leu Leu Ser Ile Gly Ile Leu Ile Gly Trp
 195 200 205
 Thr Pro Phe Leu Cys Ile Ile Leu Ser Tyr Leu Tyr Ile Ile Ser Thr
 210 215 220
 Ile Leu Arg Ile Arg Ser Ser Glu Gly Arg Gln Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Leu Ile Val Ile Leu Tyr Tyr Gly Ser Ala Ile
 245 250 255
 Phe Thr Tyr Val Arg Pro Ile Ser Ser Tyr Ser Leu Glu Lys Asp Arg
 260 265 270

Leu Ile Ser Val Leu Tyr Ser Val Phe Thr Pro Met Leu Asn Pro Ile
 275 280 285

Ile Tyr Ala Leu Arg Asn Lys Asp Ile Lys Glu Ala Val Lys Ala Ile
 290 295 300

Gly Arg Lys Trp Gln Pro Pro Val Phe Ser Ser Asp Met
 305 310 315

<210> 16
 <211> 314
 <212> PRT
 <213> Mus musculus

<400> 16
 Met Leu Asp Met Asn Ile Thr Leu Val Ser Glu Phe Ile Leu Val Gly
 1 5 10 15

Phe Pro Thr Ala Pro Trp Leu Gln Ile Leu Leu Phe Phe Ile Phe Leu
 20 25 30

Val Val Tyr Met Leu Ile Ile Ala Glu Asn Leu Val Ile Ile Phe Thr
 35 40 45

Val Trp Ser Thr Gly Ser Leu His Lys Pro Met Tyr Tyr Phe Leu Ser
 50 55 60

Ser Met Ser Phe Leu Glu Ile Trp Tyr Val Ser Val Thr Val Pro Lys
 65 70 75 80

Met Leu Asp Gly Phe Leu Leu Gln Arg Arg His Ile Ser Phe Thr Gly
 85 90 95

Cys Met Thr Gln Leu Tyr Phe Phe Ile Ser Leu Ala Cys Thr Glu Cys
 100 105 110

Val Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125

Pro Leu Arg Tyr Pro Val Ile Met Thr Thr Val Tyr Cys Met Gln Leu
 130 135 140

Met Ala Leu Ser Tyr Phe Ser Gly Phe Met Val Ser Val Val Lys Val
 145 150 155 160

Tyr Phe Ile Ser His Val Ala Phe Cys Gly Ser Asn Val Met Asn His
 165 170 175

Phe Phe Cys Asp Ile Ser Pro Ile Leu Lys Leu Ala Cys Lys Asp Met
 180 185 190

Ser Thr Ala Glu Leu Val Asp Phe Ala Leu Ala Ile Val Ile Leu Val
 195 200 205

Phe Pro Leu Ile Thr Thr Val Leu Ser Tyr Val Tyr Ile Val Ser Thr
 210 215 220

Ile Leu Arg Ile Pro Ser Thr Gln Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ile Ile Tyr Tyr Thr Ala Met Ile
 245 250 255

Phe Met Tyr Val Arg Pro Arg Ala Ile Ala Ser Phe Asn Ser Asn Lys
 260 265 270

Leu Ile Ser Ala Val Tyr Ala Val Leu Thr Pro Met Leu Asn Pro Phe
 275 280 285

Ile Tyr Cys Leu Arg Asn Arg Glu Val Lys Asp Ala Ile Lys Lys Thr
 290 295 300

Leu Gly Gly Gly Gln Cys Phe Leu Leu Cys
 305 310

<210> 17
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 17
 Met Leu Leu Gly Asn Leu Ala Ile Ile Ser Phe Ile Cys Leu Asp Ser
 1 5 10 15

Arg Leu His Ser Pro Met Tyr Phe Phe Leu Cys Asn Phe Ser Leu Met
 20 25 30

Glu Met Val Val Thr Ser Thr Val Val His Arg Met Leu Ala Asp Leu
 35 40 45

Leu Ser Thr His Lys Thr Met Ser Leu Ala Lys Cys Leu Thr Gln Ser
 50 55 60

Phe Phe Tyr Phe Ser Leu Gly Ser Ala Asn Phe Leu Ile Leu Met Val
 65 70 75 80

Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Pro
 85 90 95

Thr Ile Thr Asn Gly Pro Val Cys Val Lys Leu Val Val Ala Cys Trp
 100 105 110

Val Val Gly Phe Leu Ser Ile Val Ser Pro Thr Leu Gln Lys Thr Arg
 115 120 125

Leu Trp Phe Cys Gly Pro Asn Ile Ile Gly His Tyr Phe Cys Asp Ser
 130 135 140

Ala Pro Leu Leu Lys Leu Ala Cys Ser Asp Thr Arg His Ile Glu Arg
 145 150 155 160

Met Asp Leu Phe Leu Ser Leu Leu Phe Val Leu Thr Thr Met Leu Leu

	165		170		175
Ile Ile Leu Ser Tyr Ile Leu Ile Val Ala Ala Val Leu His Ile Pro					
	180		185		190
Ser Ser Ser Gly Cys Gln Lys Ala Phe Ser Thr Cys Ala Ser His Leu					
	195		200		205
Thr Val Val Val Leu Gly Tyr Gly Ser Ala Ile Phe Ile Tyr Val Arg					
	210		215		220
Pro Gly Lys Gly His Ser Thr Tyr Leu Asn Lys Ala Val Ala Met Val					
	225		230		235
Thr Ala Met Val Thr Pro Phe Leu Asn Pro Phe Ile Phe Thr Phe Arg					
	245		250		255
Asn Glu Lys Val Lys Glu Val Ile Glu Asp Val Thr Lys Arg Ile Phe					
	260		265		270
Leu Gly Asp Pro Ala Ala Cys Arg					
	275		280		

<210> 18
 <211> 254
 <212> PRT
 <213> Homo sapiens

<400> 18
 Gly Asn Leu Leu Val Ile Leu Val Ile Leu Arg Thr Lys Lys Leu Arg
 1 5 10 15
 Thr Pro Thr Asn Ile Phe Leu Leu Asn Leu Ala Val Ala Asp Leu Leu
 20 25 30
 Phe Leu Leu Thr Leu Pro Pro Trp Ala Leu Tyr Tyr Leu Val Gly Gly
 35 40 45
 Asp Trp Val Phe Gly Asp Ala Leu Cys Lys Leu Val Gly Ala Leu Phe
 50 55 60
 Val Val Asn Gly Tyr Ala Ser Ile Leu Leu Leu Thr Ala Ile Ser Ile
 65 70 75 80
 Asp Arg Tyr Leu Ala Ile Val His Pro Leu Arg Tyr Arg Arg Ile Arg
 85 90 95
 Thr Pro Arg Arg Ala Lys Val Leu Ile Leu Leu Val Trp Val Leu Ala
 100 105 110
 Leu Leu Leu Ser Leu Pro Pro Leu Leu Phe Ser Trp Leu Arg Thr Val
 115 120 125
 Glu Glu Gly Asn Thr Thr Val Cys Leu Ile Asp Phe Pro Glu Glu Ser
 130 135 140

Val Lys Arg Ser Tyr Val Leu Leu Ser Thr Leu Val Gly Phe Val Leu
 145 150 155 160
 Pro Leu Leu Val Ile Leu Val Cys Tyr Thr Arg Ile Leu Arg Thr Leu
 165 170 175
 Arg Lys Arg Ala Arg Ser Gln Arg Ser Leu Lys Arg Arg Ser Ser Ser
 180 185 190
 Glu Arg Lys Ala Ala Lys Met Leu Leu Val Val Val Val Val Phe Val
 195 200 205
 Leu Cys Trp Leu Pro Tyr His Ile Val Leu Leu Leu Asp Ser Leu Cys
 210 215 220
 Leu Leu Ser Ile Trp Arg Val Leu Pro Thr Ala Leu Leu Ile Thr Leu
 225 230 235 240
 Trp Leu Ala Tyr Val Asn Ser Cys Leu Asn Pro Ile Ile Tyr
 245 250

<210> 19
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:consensus
 sequence

<220>
 <221> VARIANT
 <222> (1)
 <223> Wherein Xaa is G or S or T or A or L or I or V or
 M or F or Y or W or C

<220>
 <221> VARIANT
 <222> (2)
 <223> Wherein Xaa is G or S or T or A or N or C or P or
 D or E

<220>
 <221> VARIANT
 <222> (3)
 <223> Wherein Xaa is not E or D or P or K or R or H

<220>
 <221> VARIANT
 <222> (4)
 <223> Wherein Xaa is any amino acid as defined in the
 specification

<220>
 <221> VARIANT
 <222> (5)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (6)

<223> Wherein Xaa is L or I or V or M or N or Q or G or A

<220>

<221> VARIANT

<222> (7)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (8)

<223> Wherein Xaa is any amino acid as defined in the specification

<220>

<221> VARIANT

<222> (9)

<223> Wherein Xaa is L or I or V or M or F or T

<400> 19

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Xaa
1 5 10 15

Xaa

<210> 20

<211> 990

<212> DNA

<213> Homo sapiens

<400> 20

```
gactaaatga tggacaacca ctctagtgcc actgaattcc accttctagg cttccctggg 60
tcccaaggac tacaccacat tctttttgct atattctttt tcttctatth agtgacatta 120
atgggaaaca cggtcacatc tgtgattgtc tgtgtggata aacgtctgca gtcccccattg 180
tatttcttcc tcagccacct ctctaccctg gagatcctgg tcacaaccat aattgtcccc 240
atgatgcttt ggggattgct cttcctggga tgcagacagt atctttctct acatgtatcg 300
ctcaactttt cctgtggggac catggagttt gcattacttg gagtgatggc tgtggaccgt 360
tatgtggctg tgtgtaaccc tttgaggtac aacatcatta tgaacagcag tacctgtatt 420
tgggtggtaa tagtgtcatg ggtgtttgga tttctttctg aaatctggcc catctatgcc 480
acatttcagt ttaccttccg caaatcaaat tcattagacc atttttactg tgaccgaggg 540
caattgctca aactgtcctg cgataaacact cttctcacag agtttatcct tttcttaattg 600
gctgttttta ttctcattgg ttctttgatc cctacgattg tctcctacac ctacattatc 660
tccaccatcc tcaagatccc gtcagcctct ggccggagga aagccttctc cacttttgcc 720
tcccacttca cctgtgttgt gattggctat ggcagctgct tgtttctcta cgtgaaaccc 780
aagcaaacac agggagttga gtacaataag atagtttctt tgttggtttc tgtgttaacc 840
ccccttcttg aatcctttca tctttactct tcggatgaca aagtcaaaga ggccctccga 900
gatgggatga aacgctgctg tcaactcctg aaagattagc tgttctgtaa gtcagtttta 960
ggtggtccaa gcctcagggt taattattaa 990
```

<210> 21
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 21

Met	Met	Asp	Asn	His	Ser	Ser	Ala	Thr	Glu	Phe	His	Leu	Leu	Gly	Phe
1				5					10					15	
Pro	Gly	Ser	Gln	Gly	Leu	His	His	Ile	Leu	Phe	Ala	Ile	Phe	Phe	Phe
			20					25					30		
Phe	Tyr	Leu	Val	Thr	Leu	Met	Gly	Asn	Thr	Val	Ile	Ile	Val	Ile	Val
		35					40					45			
Cys	Val	Asp	Lys	Arg	Leu	Gln	Ser	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His
	50					55					60				
Leu	Ser	Thr	Leu	Glu	Ile	Leu	Val	Thr	Thr	Ile	Ile	Val	Pro	Met	Met
65					70					75					80
Leu	Trp	Gly	Leu	Leu	Phe	Leu	Gly	Cys	Arg	Gln	Tyr	Leu	Ser	Leu	His
				85					90					95	
Val	Ser	Leu	Asn	Phe	Ser	Cys	Gly	Thr	Met	Glu	Phe	Ala	Leu	Leu	Gly
			100					105					110		
Val	Met	Ala	Val	Asp	Arg	Tyr	Val	Ala	Val	Cys	Asn	Pro	Leu	Arg	Tyr
	115						120					125			
Asn	Ile	Ile	Met	Asn	Ser	Ser	Thr	Cys	Ile	Trp	Val	Val	Ile	Val	Ser
	130					135					140				
Trp	Val	Phe	Gly	Phe	Leu	Ser	Glu	Ile	Trp	Pro	Ile	Tyr	Ala	Thr	Phe
145					150					155					160
Gln	Phe	Thr	Phe	Arg	Lys	Ser	Asn	Ser	Leu	Asp	His	Phe	Tyr	Cys	Asp
				165					170					175	
Arg	Gly	Gln	Leu	Leu	Lys	Leu	Ser	Cys	Asp	Asn	Thr	Leu	Leu	Thr	Glu
			180					185					190		
Phe	Ile	Leu	Phe	Leu	Met	Ala	Val	Phe	Ile	Leu	Ile	Gly	Ser	Leu	Ile
	195					200						205			
Pro	Thr	Ile	Val	Ser	Tyr	Thr	Tyr	Ile	Ile	Ser	Thr	Ile	Leu	Lys	Ile
	210					215					220				
Pro	Ser	Ala	Ser	Gly	Arg	Arg	Lys	Ala	Phe	Ser	Thr	Phe	Ala	Ser	His
225					230					235					240
Phe	Thr	Cys	Val	Val	Ile	Gly	Tyr	Gly	Ser	Cys	Leu	Phe	Leu	Tyr	Val
			245					250						255	
Lys	Pro	Lys	Gln	Thr	Gln	Gly	Val	Glu	Tyr	Asn	Lys	Ile	Val	Ser	Leu

260	265	270
Leu Val Ser Val Leu Thr Pro Leu Pro Glu Ser Phe His Leu Tyr Ser		
275	280	285
Ser Asp Asp Lys Val Lys Glu Ala Leu Arg Asp Gly Met Lys Arg Cys		
290	295	300
Cys Gln Leu Leu Lys Asp		
305	310	

<210> 22
 <211> 314
 <212> PRT
 <213> Mus musculus

<400> 22
 Met Met Asp Asn Leu Ser Ser Ala Thr Glu Phe Cys Leu Leu Gly Phe
 1 5 10 15

Pro Gly Ser Gln Glu Leu His Tyr Ile Leu Phe Ala Ile Phe Phe Phe
 20 25 30

Phe Tyr Ser Val Thr Leu Leu Gly Asn Met Val Ile Ile Ile Ile Val
 35 40 45

Cys Val Asp Lys Arg Leu Gln Ser Pro Met Tyr Phe Phe Leu Gly Asn
 50 55 60

Leu Ser Leu Leu Glu Ile Leu Val Thr Thr Thr Ile Val Pro Leu Met
 65 70 75 80

Leu Trp Gly Leu Leu Leu Pro Gly Lys Gln Thr Ile Ser Leu Asn Gly
 85 90 95

Cys Ile Ala Gln Leu Phe Leu Tyr Leu Ala Leu Gly Thr Thr Glu Phe
 100 105 110

Ala Val Leu Gly Ala Met Ala Val Asp Arg Tyr Val Ala Val Cys Asn
 115 120 125

Pro Leu Arg Tyr Ser Val Ile Met Asn Ser Arg Thr Cys Ile Trp Val
 130 135 140

Val Met Val Ser Trp Met Phe Gly Phe Leu Ser Glu Ile Trp Pro Val
 145 150 155 160

Tyr Ala Thr Phe Gln Phe Thr Phe Cys Lys Ser Asn Leu Leu Asp His
 165 170 175

Phe Tyr Cys Asp Arg Gly Gln Leu Leu Lys Leu Ser Cys Asn Glu Thr
 180 185 190

Phe Leu Thr Glu Phe Ile Leu Phe Ile Met Ala Ile Phe Ile Ile Val
 195 200 205

Gly Ser Leu Ile Pro Thr Ile Val Ser Tyr Thr Tyr Ile Ile Ser Thr
 210 215 220
 Ile Leu Lys Ile Pro Ser Ala Ser Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Phe Thr Phe Val Val Ile Gly Tyr Gly Thr Cys Leu
 245 250 255
 Phe Leu Tyr Val Lys Pro Lys Gln Thr Gln Ala Ala Glu Tyr Asn Arg
 260 265 270
 Val Ala Ser Leu Leu Val Ser Val Val Thr Pro Phe Leu Asn Pro Phe
 275 280 285
 Ile Phe Thr Leu Arg Asn Asp Lys Val Lys Glu Ala Leu Arg Asp Gly
 290 295 300
 Val Lys Arg Cys Cys Leu Leu Leu Arg Asp
 305 310

<210> 23
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 23
 Met Ala Asn Ser Thr Thr Val Thr Glu Phe Ile Leu Leu Gly Leu Ser
 1 5 10 15
 Asp Ala Cys Glu Leu Gln Val Leu Ile Phe Leu Gly Phe Leu Leu Thr
 20 25 30
 Tyr Phe Leu Ile Leu Leu Gly Asn Phe Leu Ile Ile Phe Ile Thr Leu
 35 40 45
 Val Asp Arg Arg Leu Tyr Thr Pro Met Tyr Tyr Phe Leu Arg Asn Phe
 50 55 60
 Ala Met Leu Glu Ile Trp Phe Thr Ser Val Ile Phe Pro Lys Met Leu
 65 70 75 80
 Thr Asn Ile Ile Thr Gly His Lys Thr Ile Ser Leu Leu Gly Cys Phe
 85 90 95
 Leu Gln Ala Phe Leu Tyr Phe Phe Leu Gly Thr Thr Glu Phe Phe Leu
 100 105 110
 Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Ile Cys Asn Pro Leu
 115 120 125
 Arg Tyr Ala Thr Ile Met Ser Lys Arg Val Cys Val Gln Leu Val Phe
 130 135 140
 Cys Ser Trp Met Ser Gly Leu Leu Leu Ile Ile Val Pro Ser Ser Ile
 145 150 155 160

Val Phe Gln Gln Pro Phe Cys Gly Pro Asn Ile Ile Asn His Phe Phe
 165 170 175
 Cys Asp Asn Phe Pro Leu Met Glu Leu Ile Cys Ala Asp Thr Ser Leu
 180 185 190
 Val Glu Phe Leu Gly Phe Val Ile Ala Asn Phe Ser Leu Leu Gly Thr
 195 200 205
 Leu Ala Val Thr Ala Thr Cys Tyr Gly His Ile Leu Tyr Thr Ile Leu
 210 215 220
 His Ile Pro Ser Ala Lys Glu Arg Lys Lys Ala Phe Ser Thr Cys Ser
 225 230 235 240
 Ser His Ile Ile Val Val Ser Leu Phe Tyr Gly Ser Cys Ile Phe Met
 245 250 255
 Tyr Val Arg Ser Gly Lys Asn Gly Gln Gly Glu Asp His Asn Lys Val
 260 265 270
 Val Ala Leu Leu Asn Thr Val Val Thr Pro Thr Leu Asn Pro Phe Ile
 275 280 285
 Tyr Thr Leu Arg Asn Lys Gln Val Lys Gln Val Phe Arg Glu His Val
 290 295 300
 Ser Lys Phe Gln Lys Phe Ser Gln Thr
 305 310

<210> 24
 <211> 316
 <212> PRT
 <213> Mus musculus

<400> 24
 Met Glu Asn Ile Thr Asn Ile Ser Glu Phe Ile Leu Met Gly Phe Pro
 1 5 10 15
 Thr Ala Pro Trp Leu Gln Ile Leu Leu Phe Ser Ile Phe Phe Ile Thr
 20 25 30
 Tyr Val Phe Val Leu Leu Glu Asn Leu Val Ile Ile Leu Thr Val Trp
 35 40 45
 Val Thr Gly Ser Leu His Lys Pro Met Tyr Tyr Phe Leu Ser Thr Met
 50 55 60
 Ser Phe Leu Glu Ala Trp Tyr Ile Ser Val Thr Val Pro Lys Met Leu
 65 70 75 80
 Ala Gly Phe Leu Phe Arg Pro Asn Thr Ile Ser Phe Leu Gly Cys Met
 85 90 95
 Thr Gln Leu Tyr Phe Phe Met Ser Leu Ala Cys Thr Glu Cys Val Leu

100	105	110
Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Trp Pro Leu 115	120	125
Arg Tyr Pro Val Met Met Thr Thr Gly Phe Cys Val Gln Leu Thr Ile 130	135	140
Ser Ser Trp Val Ser Gly Phe Thr Ile Ser Met Ala Lys Val Tyr Phe 145	150	155
Ile Ser Arg Val Ala Phe Cys Gly Asn Asn Val Leu Asn His Phe Phe 165	170	175
Cys Asp Val Ser Pro Ile Leu Lys Leu Ala Cys Met Asn Leu Ser Met 180	185	190
Ala Glu Thr Val Asp Phe Ala Leu Ala Ile Val Ile Leu Ile Phe Pro 195	200	205
Leu Ser Ala Thr Val Leu Ser Tyr Gly Phe Ile Val Ser Thr Val Leu 210	215	220
Gln Ile Pro Ser Ala Thr Gly Gln Arg Lys Ala Phe Ser Thr Cys Ala 225	230	235
Ser His Leu Thr Val Val Val Ile Phe Tyr Thr Ala Val Ile Phe Met 245	250	255
Tyr Val Arg Pro Arg Ala Ile Ala Ser Phe Asn Ser Asn Lys Leu Ile 260	265	270
Ser Ala Ile Tyr Ala Val Phe Thr Pro Met Leu Asn Pro Ile Ile Tyr 275	280	285
Cys Leu Arg Asn Lys Glu Val Lys Asp Ala Ile Arg Lys Thr Ile Ala 290	295	300
Gly Gly Arg Ala Pro Ala Leu Gly Glu Ser Ile Ser 305	310	315

<210> 25
 <211> 316
 <212> PRT
 <213> Mus musculus

<400> 25
 Met Glu Asn Ile Thr Asn Ile Ser Glu Phe Ile Leu Met Gly Phe Pro
 1 5 10 15
 Thr Ala Pro Trp Leu Gln Ile Leu Leu Phe Ser Ile Phe Phe Ile Thr
 20 25 30
 Tyr Val Phe Val Leu Leu Glu Asn Leu Val Ile Ile Leu Thr Val Trp
 35 40 45

Val	Thr	Gly	Ser	Leu	His	Lys	Pro	Met	Tyr	Tyr	Phe	Leu	Ser	Thr	Met	50	55	60	
Ser	Phe	Leu	Glu	Ala	Trp	Tyr	Ile	Ser	Val	Thr	Val	Pro	Lys	Met	Leu	65	70	75	80
Ala	Gly	Phe	Leu	Phe	His	Pro	Asn	Thr	Ile	Ser	Phe	Leu	Gly	Cys	Met	85	90	95	
Thr	Gln	Leu	Tyr	Phe	Phe	Met	Ser	Leu	Ala	Cys	Thr	Glu	Cys	Val	Leu	100	105	110	
Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Trp	Pro	Leu	115	120	125	
Arg	Tyr	Pro	Val	Met	Met	Thr	Thr	Gly	Phe	Cys	Val	Gln	Leu	Thr	Ile	130	135	140	
Ser	Ser	Trp	Val	Ser	Gly	Phe	Thr	Ile	Ser	Met	Ala	Lys	Val	Tyr	Phe	145	150	155	160
Leu	Ser	Arg	Val	Ala	Phe	Cys	Gly	Asn	Asn	Val	Leu	Asn	His	Phe	Phe	165	170	175	
Cys	Asp	Val	Ser	Pro	Ile	Leu	Lys	Leu	Ala	Cys	Met	Asn	Leu	Ser	Met	180	185	190	
Ala	Glu	Thr	Val	Asp	Phe	Ala	Leu	Ala	Ile	Val	Ile	Leu	Ile	Phe	Pro	195	200	205	
Leu	Ser	Ala	Thr	Val	Leu	Ser	Tyr	Gly	Phe	Ile	Val	Ser	Thr	Val	Leu	210	215	220	
Gln	Ile	Pro	Ser	Ala	Thr	Gly	Gln	Arg	Lys	Ala	Phe	Ser	Thr	Cys	Ala	225	230	235	240
Ser	His	Leu	Thr	Val	Val	Val	Ile	Phe	Tyr	Thr	Ala	Val	Ile	Phe	Met	245	250	255	
Tyr	Val	Arg	Pro	Arg	Ala	Ile	Ala	Ser	Phe	Asn	Ser	Asn	Lys	Leu	Ile	260	265	270	
Ser	Ala	Ile	Tyr	Ala	Val	Phe	Thr	Pro	Met	Leu	Asn	Pro	Ile	Ile	Tyr	275	280	285	
Cys	Leu	Arg	Asn	Lys	Glu	Val	Lys	Asp	Ala	Ile	Arg	Lys	Thr	Ile	Ala	290	295	300	
Gly	Gly	Arg	Ala	Pro	Ala	Leu	Gly	Glu	Ser	Ile	Ser	305	310	315					

<210> 26
 <211> 314
 <212> PRT
 <213> Mus musculus

<400> 26

Met	Leu	Asp	Met	Asn	Ile	Thr	Leu	Val	Ser	Glu	Phe	Ile	Leu	Val	Gly
1				5					10					15	
Phe	Pro	Thr	Ala	Pro	Trp	Leu	Gln	Ile	Leu	Leu	Phe	Phe	Ile	Phe	Leu
			20					25					30		
Val	Val	Tyr	Met	Leu	Ile	Ile	Ala	Glu	Asn	Leu	Val	Ile	Ile	Phe	Thr
		35					40					45			
Val	Trp	Ser	Thr	Gly	Ser	Leu	His	Lys	Pro	Met	Tyr	Tyr	Phe	Leu	Ser
	50					55					60				
Ser	Met	Ser	Phe	Leu	Glu	Ile	Trp	Tyr	Val	Ser	Val	Thr	Val	Pro	Lys
65					70					75					80
Met	Leu	Asp	Gly	Phe	Leu	Leu	Gln	Arg	Arg	His	Ile	Ser	Phe	Thr	Gly
				85					90						95
Cys	Met	Thr	Gln	Leu	Tyr	Phe	Phe	Ile	Ser	Leu	Ala	Cys	Thr	Glu	Cys
			100					105					110		
Val	Leu	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His
			115					120					125		
Pro	Leu	Arg	Tyr	Pro	Val	Ile	Met	Thr	Thr	Val	Tyr	Cys	Met	Gln	Leu
	130					135					140				
Met	Ala	Leu	Ser	Tyr	Phe	Ser	Gly	Phe	Met	Val	Ser	Val	Val	Lys	Val
145					150					155					160
Tyr	Phe	Ile	Ser	His	Val	Ala	Phe	Cys	Gly	Ser	Asn	Val	Met	Asn	His
				165					170					175	
Phe	Phe	Cys	Asp	Ile	Ser	Pro	Ile	Leu	Lys	Leu	Ala	Cys	Lys	Asp	Met
			180					185					190		
Ser	Thr	Ala	Glu	Leu	Val	Asp	Phe	Ala	Leu	Ala	Ile	Val	Ile	Leu	Val
			195				200					205			
Phe	Pro	Leu	Ile	Thr	Thr	Val	Leu	Ser	Tyr	Val	Tyr	Ile	Val	Ser	Thr
	210					215					220				
Ile	Leu	Arg	Ile	Pro	Ser	Thr	Gln	Gly	Arg	Lys	Lys	Ala	Phe	Ser	Thr
225					230					235					240
Cys	Ala	Ser	His	Leu	Thr	Val	Val	Ile	Ile	Tyr	Tyr	Thr	Ala	Met	Ile
				245					250					255	
Phe	Met	Tyr	Val	Arg	Pro	Arg	Ala	Ile	Ala	Ser	Phe	Asn	Ser	Asn	Lys
			260					265					270		
Leu	Ile	Ser	Ala	Val	Tyr	Ala	Val	Leu	Thr	Pro	Met	Leu	Asn	Pro	Phe
		275					280					285			
Ile	Tyr	Cys	Leu	Arg	Asn	Arg	Glu	Val	Lys	Asp	Ala	Ile	Lys	Lys	Thr
290					295						300				

Leu Gly Gly Gly Gln Cys Phe Leu Leu Cys
305 310

<210> 27
<211> 971
<212> DNA
<213> Homo sapiens

<400> 27
caatgatgga aatagccaat gtgagttctc cagaagtctt tgtcctcctg ggctttctccg 60
cacgaccctc actagaaact gtcctcttca tagttgtctt gagtttttac atgggtatcga 120
tcttgggcaa tggcatcatc attctgggtc cccatacaga tgtgcacctc cacacaccta 180
tgtactttctt tcttgccaac ctctccttcc tggacatgag cttcaccacg agcattgtcc 240
cacagctcct ggctaacctc tggggaccac agaaaacat aagctatgga ggggtgtgtgg 300
tccagttcta tatctcccat tggctggggg caaccgagtg tgtcctgctg gccaccatgt 360
cctatgaccg ctacgctgcc atctgcaggc cactccatta cactgtcatt atgcatccac 420
agctttgcct tgggctagct ttggcctcct ggctgggggg tctgaccacc agcatgggtgg 480
gctccacgct caccatgctc ctaccgctgt gtgggaacaa ttgcatcgac cacttctttt 540
gcgagatgcc cctcattatg caactggctt gtgtggatac cagcctcaat gagatggaga 600
tgtacctggc cagctttgtc tttgttgtcc tgcctctggg gctcatcctg gtctcttacg 660
gccacattgc ccgggccgtg ttgaagatca ggtcagcaga agggcggaga aaggcattca 720
acacctgttc ttcccacgtg gctgtgggtgt ctctgtttta cgggagcatc atcttcatgt 780
atctccagcc agccaagagc acctcccatg agcagggcaa gtccatagct ctgttctaca 840
ccgtagtcac tcttgctgtg aaccagtta ttacaccct gaggaacacg gaggtgaaga 900
gcgcctccg gcacatggta ttagagaact gctgtggctc tgcaggcaag ctggcgcaaa 960
tttagagact c 971

<210> 28
<211> 320
<212> PRT
<213> Homo sapiens

<400> 28
Met Met Glu Ile Ala Asn Val Ser Ser Pro Glu Val Phe Val Leu Leu
1 5 10 15
Gly Phe Ser Ala Arg Pro Ser Leu Glu Thr Val Leu Phe Ile Val Val
20 25 30
Leu Ser Phe Tyr Met Val Ser Ile Leu Gly Asn Gly Ile Ile Ile Leu
35 40 45
Val Ser His Thr Asp Val His Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60
Ala Asn Leu Ser Phe Leu Asp Met Ser Phe Thr Thr Ser Ile Val Pro
65 70 75 80
Gln Leu Leu Ala Asn Leu Trp Gly Pro Gln Lys Thr Ile Ser Tyr Gly
85 90 95
Gly Cys Val Val Gln Phe Tyr Ile Ser His Trp Leu Gly Ala Thr Glu
100 105 110

Cys Val Leu Leu Ala Thr Met Ser Tyr Asp Arg Tyr Ala Ala Ile Cys
 115 120 125
 Arg Pro Leu His Tyr Thr Val Ile Met His Pro Gln Leu Cys Leu Gly
 130 135 140
 Leu Ala Leu Ala Ser Trp Leu Gly Gly Leu Thr Thr Ser Met Val Gly
 145 150 155 160
 Ser Thr Leu Thr Met Leu Leu Pro Leu Cys Gly Asn Asn Cys Ile Asp
 165 170 175
 His Phe Phe Cys Glu Met Pro Leu Ile Met Gln Leu Ala Cys Val Asp
 180 185 190
 Thr Ser Leu Asn Glu Met Glu Met Tyr Leu Ala Ser Phe Val Phe Val
 195 200 205
 Val Leu Pro Leu Gly Leu Ile Leu Val Ser Tyr Gly His Ile Ala Arg
 210 215 220
 Ala Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Arg Lys Ala Phe Asn
 225 230 235 240
 Thr Cys Ser Ser His Val Ala Val Val Ser Leu Phe Tyr Gly Ser Ile
 245 250 255
 Ile Phe Met Tyr Leu Gln Pro Ala Lys Ser Thr Ser His Glu Gln Gly
 260 265 270
 Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ala Leu Asn Pro
 275 280 285
 Val Ile Tyr Thr Leu Arg Asn Thr Glu Val Lys Ser Ala Leu Arg His
 290 295 300
 Met Val Leu Glu Asn Cys Cys Gly Ser Ala Gly Lys Leu Ala Gln Ile
 305 310 315 320

<210> 29
 <211> 312
 <212> PRT
 <213> Mus musculus

<400> 29
 Met Glu Val Asp Ser Asn Ser Ser Ser Gly Thr Phe Ile Leu Met Gly
 1 5 10 15
 Val Ser Asp His Pro His Leu Glu Ile Ile Phe Phe Ala Val Ile Leu
 20 25 30
 Ala Ser Tyr Leu Leu Thr Leu Val Gly Asn Leu Thr Ile Ile Leu Leu
 35 40 45

Ser Arg Leu Asp Ala Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Ser Leu Asp Leu Ala Phe Thr Thr Ser Ser Val Pro Gln
 65 70 75 80
 Met Leu Lys Asn Leu Trp Gly Pro Asp Lys Thr Ile Ser Tyr Gly Gly
 85 90 95
 Cys Val Thr Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Cys
 100 105 110
 Ile Leu Leu Val Val Met Ala Phe Asp Arg Tyr Val Ala Val Cys Arg
 115 120 125
 Pro Leu His Tyr Met Thr Val Met Asn Pro Arg Leu Cys Trp Gly Leu
 130 135 140
 Ala Ala Ile Ser Trp Leu Gly Gly Leu Gly Asn Ser Val Ile Gln Ser
 145 150 155 160
 Thr Phe Thr Leu Gln Leu Pro Phe Cys Gly His Arg Lys Val Asp Asn
 165 170 175
 Phe Leu Cys Glu Val Pro Ala Met Ile Lys Leu Ala Cys Gly Asp Thr
 180 185 190
 Ser Leu Asn Glu Ala Val Leu Asn Gly Val Cys Thr Phe Phe Thr Val
 195 200 205
 Val Pro Val Ser Val Ile Leu Val Ser Tyr Cys Phe Ile Ala Gln Ala
 210 215 220
 Val Met Lys Ile Arg Ser Val Glu Gly Arg Arg Lys Ala Phe Asn Thr
 225 230 235 240
 Cys Val Ser His Leu Val Val Val Phe Leu Phe Tyr Gly Ser Ala Ile
 245 250 255
 Tyr Gly Tyr Leu Leu Pro Ala Lys Ser Ser Asn Gln Ser Gln Gly Lys
 260 265 270
 Phe Ile Ser Leu Phe Tyr Ser Val Val Thr Pro Met Val Asn Pro Leu
 275 280 285
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Gly Arg Leu
 290 295 300
 Leu Gly Lys Gly Arg Gly Ala Ser
 305 310

<210> 30
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 30

Met	Leu	Met	Lys	Lys	Asn	Ala	Ser	Phe	Glu	Asp	Phe	Phe	Ile	Leu	Leu
1				5					10					15	
Gly	Phe	Ser	Asn	Trp	Pro	His	Leu	Glu	Val	Val	Leu	Phe	Val	Val	Ile
			20					25					30		
Leu	Ile	Phe	Tyr	Leu	Ile	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile	Ile	Ile
		35					40					45			
Leu	Ser	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu
	50					55					60				
Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser	Ile	Pro
65					70					75					80
Gln	Leu	Leu	Val	Asn	Leu	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ala
				85					90					95	
Gly	Cys	Thr	Val	Gln	Leu	Tyr	Phe	Val	Leu	Ala	Leu	Gly	Thr	Ala	Glu
			100					105					110		
Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala	Val	Cys
		115					120					125			
Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Pro	Arg	Phe	Cys	Arg	Leu
	130					135					140				
Leu	Ala	Ala	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Thr	Ser	Ala	Leu	His
145					150					155					160
Ser	Ser	Phe	Thr	Phe	Trp	Ile	Pro	Leu	Cys	Arg	His	Arg	Leu	Val	Asp
				165					170					175	
His	Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Arg	Leu	Ser	Cys	Val	Asp
			180					185					190		
Thr	Gln	Ala	Asn	Glu	Leu	Thr	Leu	Met	Val	Met	Ser	Ser	Ile	Phe	Val
		195					200						205		
Leu	Ile	Pro	Leu	Ile	Leu	Ile	Leu	Thr	Ser	Tyr	Gly	Ala	Ile	Ala	Arg
	210					215					220				
Ala	Val	Leu	Ser	Met	Gln	Ser	Thr	Thr	Gly	Leu	Gln	Lys	Val	Leu	Arg
225					230					235					240
Thr	Cys	Gly	Ala	His	Leu	Met	Val	Val	Ser	Leu	Phe	Phe	Ile	Pro	Val
				245					250					255	
Met	Cys	Met	Tyr	Leu	Gln	Pro	Pro	Ser	Glu	Asn	Ser	Gln	Asp	Gln	Gly
			260					265					270		
Lys	Phe	Ile	Ala	Leu	Phe	Tyr	Thr	Val	Val	Thr	Pro	Ser	Leu	Asn	Pro
		275					280					285			
Leu	Ile	Tyr	Thr	Phe	Arg	Asn	Lys	Asp	Val	Arg	Gly	Ala	Val	Lys	Arg

290 295 300
 Leu Met Gly Trp Glu Trp Gly Met
 305 310

 <210> 31
 <211> 312
 <212> PRT
 <213> Homo sapiens

 <400> 31
 Met Leu Met Lys Lys Asn Ala Ser Phe Glu Asp Phe Phe Leu Leu Leu
 1 5 10 15
 Gly Phe Ser Asn Trp Pro His Leu Glu Val Val Leu Phe Val Val Ile
 20 25 30
 Leu Ile Phe Tyr Leu Ile Thr Leu Ile Gly Asn Leu Phe Ile Ile Ile
 35 40 45
 Leu Ser Tyr Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Ser Asn Leu Ser Phe Leu Asp Leu Cys Tyr Thr Thr Ser Ser Ile Pro
 65 70 75 80
 Gln Leu Leu Val Asn Leu Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ala
 85 90 95
 Gly Cys Thr Val Gln Leu Tyr Phe Val Leu Ala Leu Gly Thr Ala Glu
 100 105 110
 Cys Val Leu Leu Val Val Met Ser Tyr Asp Arg Tyr Ala Ala Val Cys
 115 120 125
 Arg Pro Leu His Tyr Thr Val Leu Met His Pro Arg Phe Cys Arg Leu
 130 135 140
 Leu Ala Ala Ala Ser Trp Val Ser Gly Phe Thr Thr Ser Ala Leu His
 145 150 155 160
 Ser Ser Phe Thr Phe Trp Ile Pro Leu Cys Arg His Arg Leu Val Asp
 165 170 175
 His Phe Phe Cys Glu Val Pro Ala Leu Leu Arg Leu Ser Cys Val Asp
 180 185 190
 Thr Gln Ala Asn Glu Leu Thr Leu Met Val Met Ser Ser Ile Phe Val
 195 200 205
 Leu Ile Pro Leu Ile Leu Ile Leu Thr Ser Tyr Gly Ala Ile Ala Arg
 210 215 220
 Ala Val Leu Ser Met Gln Ser Thr Thr Gly Leu Gln Lys Val Leu Arg
 225 230 235 240

Thr Cys Gly Ala His Leu Met Val Val Ser Leu Phe Phe Ile Pro Val
 245 250 255

Met Cys Met Tyr Leu Gln Pro Pro Ser Glu Asn Ser Gln Asp Gln Gly
 260 265 270

Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ser Leu Asn Pro
 275 280 285

Leu Ile Tyr Thr Phe Arg Asn Lys Asp Val Arg Gly Ala Val Lys Arg
 290 295 300

Leu Met Gly Trp Glu Trp Gly Met
 305 310

<210> 32
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 32
 Met Asn Asp Asp Gly Lys Val Asn Ala Ser Ser Glu Gly Tyr Phe Ile
 1 5 10 15

Leu Val Gly Phe Ser Asn Trp Pro His Leu Glu Val Val Ile Phe Val
 20 25 30

Val Val Leu Ile Phe Tyr Leu Met Thr Leu Ile Gly Asn Leu Phe Ile
 35 40 45

Ile Ile Leu Ser Tyr Leu Asp Ser His Leu His Thr Pro Met Tyr Phe
 50 55 60

Phe Leu Ser Asn Leu Ser Phe Leu Asp Leu Cys Tyr Thr Thr Ser Ser
 65 70 75 80

Ile Pro Gln Leu Leu Val Asn Leu Trp Gly Pro Glu Lys Thr Ile Ser
 85 90 95

Tyr Ala Gly Cys Met Ile Gln Leu Tyr Phe Val Leu Ala Leu Gly Thr
 100 105 110

Thr Glu Cys Val Leu Leu Val Val Met Ser Tyr Asp Arg Tyr Ala Ala
 115 120 125

Val Cys Arg Pro Leu His Tyr Thr Val Leu Met His Pro Arg Phe Cys
 130 135 140

His Leu Leu Ala Val Ala Ser Trp Val Ser Gly Phe Thr Asn Ser Ala
 145 150 155 160

Leu His Ser Ser Phe Thr Phe Trp Val Pro Leu Cys Gly His Arg Gln
 165 170 175

Val Asp His Phe Phe Cys Glu Val Pro Ala Leu Leu Arg Leu Ser Cys
 180 185 190

Val Asp Thr His Val Asn Glu Leu Thr Leu Met Ile Thr Ser Ser Ile
195 200 205

Phe Val Leu Ile Pro Leu Ile Leu Ile Leu Thr Ser Tyr Gly Ala Ile
210 215 220

Val Arg Ala Val Leu Arg Met Gln Ser Thr Thr Gly Leu Gln Lys Val
225 230 235 240

Phe Gly Thr Cys Gly Ala His Leu Met Ala Val Ser Leu Phe Phe Ile
245 250 255

Pro Ala Met Cys Ile Tyr Leu Gln Pro Pro Ser Gly Asn Ser Gln Asp
260 265 270

Gln Gly Lys Phe Ile Ala Leu Phe Tyr Thr Val Val Thr Pro Ser Leu
275 280 285

Asn Pro Leu Ile Tyr Thr Leu Arg Asn Lys Val Val Arg Gly Ala Val
290 295 300

Lys Arg Leu Met Gly Trp Glu
305 310

<210> 33
<211> 320
<212> PRT
<213> Homo sapiens

<400> 33
Met Asp Gln Ser Asn Tyr Ser Ser Leu His Gly Phe Ile Leu Leu Gly
1 5 10 15

Phe Ser Asn His Pro Lys Met Glu Met Ile Leu Ser Gly Val Val Ala
20 25 30

Ile Phe Tyr Leu Ile Thr Leu Val Gly Asn Thr Ala Ile Ile Leu Ala
35 40 45

Ser Leu Leu Asp Ser Gln Leu His Thr Pro Met Tyr Phe Phe Leu Arg
50 55 60

Asn Leu Ser Phe Leu Asp Leu Cys Phe Thr Thr Ser Ile Ile Pro Gln
65 70 75 80

Met Leu Val Asn Leu Trp Gly Pro Asp Lys Thr Ile Ser Tyr Val Gly
85 90 95

Cys Ile Ile Gln Leu Tyr Val Tyr Met Trp Leu Gly Ser Val Glu Cys
100 105 110

Leu Leu Leu Ala Val Met Ser Tyr Asp Arg Phe Thr Ala Ile Cys Lys
115 120 125

Pro Leu His Tyr Phe Val Val Met Asn Pro His Leu Cys Leu Lys Met

130		135		140
Ile Ile Met Ile Trp Ser Ile Ser Leu Ala Asn Ser Val Val Leu Cys				
145		150	155	160
Thr Leu Thr Leu Asn Leu Pro Thr Cys Gly Asn Asn Ile Leu Asp His				
	165		170	175
Phe Leu Cys Glu Leu Pro Ala Leu Val Lys Ile Ala Cys Val Asp Thr				
	180		185	190
Thr Thr Val Glu Met Ser Val Phe Ala Leu Gly Ile Ile Ile Val Leu				
	195		200	205
Thr Pro Leu Ile Leu Ile Leu Ile Ser Tyr Gly Tyr Ile Ala Lys Ala				
	210	215	220	
Val Leu Arg Thr Lys Ser Lys Ala Ser Gln Arg Lys Ala Met Asn Thr				
225		230	235	240
Cys Gly Ser His Leu Thr Val Val Ser Met Phe Tyr Gly Thr Ile Ile				
	245		250	255
Tyr Met Tyr Leu Gln Pro Gly Asn Arg Ala Ser Lys Asp Gln Gly Lys				
	260		265	270
Phe Leu Thr Leu Phe Tyr Thr Val Ile Thr Pro Ser Leu Asn Pro Leu				
	275		280	285
Ile Tyr Thr Leu Arg Asn Lys Asp Met Lys Asp Ala Leu Lys Lys Leu				
	290	295	300	
Met Arg Phe His His Lys Ser Thr Lys Ile Lys Arg Asn Cys Lys Ser				
305		310	315	320

<210> 34
 <211> 1025
 <212> DNA
 <213> Homo sapiens

<400> 34
 agctgtggac catctcttca gaactctgca gcatggagcc gctcaacaga acagaggtgt 60
 ccgagttctt tctgaaagga ttttctggct acccagccct ggagcatctg ctcttccctc 120
 tgtgctcagc catgtacctg gtgaccctcc tggggaacac agccatcatg gcggtgagcg 180
 tgctagatat ccacctgcac acgcccgtgt acttcttccct gggcaacctc tctaccttgg 240
 acatctgcta cagccccacc tttgtgcctc tgatgctggt ccacctctg tcatcccgga 300
 agaccatctc ctttgctgtc tgtgccatcc agatgtgtct gagcctgtcc acggggtcca 360
 cggagtgcct gctactggcc atcacggcct atgaccgcta cctggccatc tgccagccac 420
 tcaggtacca cgtgctcatg agccaccggc tctgcgtgct gctgatggga gctgcctggg 480
 tcctctgcct cctcaagtgc gtgactgaga tggatcatct catgaggctg cccttctgtg 540
 gccaccacgt ggtcagtcac ttcacctgca agatcctggc agtgetgaag ctggcatgcg 600
 gcaacacgtc ggtcagcgaa gacttcctgc tggcgggctc catcctgctg ctgcctgtac 660
 ccctggcatt catctgcctg tcctacttgc tcatcctggc caccatcctg aggggtgccct 720

cggccgcccag gtgctgcaaa gccttctcca cctgcttggc acacctggct gtagtgctgc 780
 ttttctacgg caccatcatc ttcatgtact tgaagcccaa gagtaaggaa gcccacatct 840
 ctgatgaggt cttcacagtc ctctatgcca tggtcacgac catgctgaac cccaccatct 900
 acagcctgag gaacaaggag gtgaaggagg ccgccaggaa ggtgtggggc aggagtcggg 960
 cctccagggtg agggagggcg gggctctgta cagacgcagg tctcaggta gtagctgagg 1020
 ccatac 1025

<210> 35
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 35
 Met Glu Pro Leu Asn Arg Thr Glu Val Ser Glu Phe Phe Leu Lys Gly
 1 5 10 15
 Phe Ser Gly Tyr Pro Ala Leu Glu His Leu Leu Phe Pro Leu Cys Ser
 20 25 30
 Ala Met Tyr Leu Val Thr Leu Leu Gly Asn Thr Ala Ile Met Ala Val
 35 40 45
 Ser Val Leu Asp Ile His Leu His Thr Pro Val Tyr Phe Phe Leu Gly
 50 55 60
 Asn Leu Ser Thr Leu Asp Ile Cys Tyr Thr Pro Thr Phe Val Pro Leu
 65 70 75 80
 Met Leu Val His Leu Leu Ser Ser Arg Lys Thr Ile Ser Phe Ala Val
 85 90 95
 Cys Ala Ile Gln Met Cys Leu Ser Leu Ser Thr Gly Ser Thr Glu Cys
 100 105 110
 Leu Leu Leu Ala Ile Thr Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gln
 115 120 125
 Pro Leu Arg Tyr His Val Leu Met Ser His Arg Leu Cys Val Leu Leu
 130 135 140
 Met Gly Ala Ala Trp Val Leu Cys Leu Leu Lys Ser Val Thr Glu Met
 145 150 155 160
 Val Ile Ser Met Arg Leu Pro Phe Cys Gly His His Val Val Ser His
 165 170 175
 Phe Thr Cys Lys Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asn Thr
 180 185 190
 Ser Val Ser Glu Asp Phe Leu Leu Ala Gly Ser Ile Leu Leu Leu Pro
 195 200 205
 Val Pro Leu Ala Phe Ile Cys Leu Ser Tyr Leu Leu Ile Leu Ala Thr
 210 215 220
 Ile Leu Arg Val Pro Ser Ala Ala Arg Cys Cys Lys Ala Phe Ser Thr

225		230		235		240									
Cys	Leu	Ala	His	Leu	Ala	Val	Val	Leu	Leu	Phe	Tyr	Gly	Thr	Ile	Ile
			245					250						255	
Phe	Met	Tyr	Leu	Lys	Pro	Lys	Ser	Lys	Glu	Ala	His	Ile	Ser	Asp	Glu
			260					265					270		
Val	Phe	Thr	Val	Leu	Tyr	Ala	Met	Val	Thr	Thr	Met	Leu	Asn	Pro	Thr
			275					280					285		
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Glu	Val	Lys	Glu	Ala	Ala	Arg	Lys	Val
			290				295					300			
Trp	Gly	Arg	Ser	Arg	Ala	Ser	Arg								
305						310									

<210> 36
 <211> 917
 <212> DNA
 <213> Homo sapiens

<400> 36
 tgctcttccc tctgtgctca gccatgtacc tgggtgaccct cctggggaac acagccatca 60
 tggcggtgag cgtgctagat atccacctgc acacgcccgt gtacttcttc ctgggcaacc 120
 tctctaccct ggacatctgc tacacgcca cctttgtgcc tctgatgtg gtccacctcc 180
 tgtcatcccg gaagaccatc tcctttgctg tctgtgccat ccagatgtgt ctgagcctgt 240
 ccacgggctc cacggagtgc ctgctactgg ccatcacggc ctatgaccgc tacctggcca 300
 tctgccagcc actcaggtac cacgtgctca tgagccaccg gctctgcgtg ctgctgatgg 360
 gagctgcctg ggtcctctgc ctctcaagt cggtgactga gatggtcac tccatgaggc 420
 tgcccttctg tggccaccac gtggtcagtc acttcacctg caagatcctg gcagtgtgta 480
 agctggcatg cggcaacacg tcggtcagcg aagacttcct gctggcgggc tccatcctgc 540
 tgctgcctgt acccctggca ttcactctgcc tgtcctactt gctcactctg gccaccatcc 600
 tgagggtgcc ctggcgccgc aggtgctgca aagccttctc cacctgcttg gcacacctgg 660
 ctgtagtgct gcttttctac ggcaccatca tcttcatgta cttgaagccc aagagtaagg 720
 aagcccacat ctctgatgag gtcttcacag tcctctatgc catggtcacg accatgtgta 780
 accccacat ctacagcctg aggaacaagg aggtgaagga ggccgccagg aaggtgtggg 840
 gcaggagtcg ggccctccagg tgagggaggg cggggctctg tacagacgca ggtctcaggt 900
 tagtagctga ggccatc 917

<210> 37
 <211> 286
 <212> PRT
 <213> Homo sapiens

<400> 37
 Leu Phe Pro Leu Cys Ser Ala Met Tyr Leu Val Thr Leu Leu Gly Asn
 1 5 10 15
 Thr Ala Ile Met Ala Val Ser Val Leu Asp Ile His Leu His Thr Pro
 20 25 30
 Val Tyr Phe Phe Leu Gly Asn Leu Ser Thr Leu Asp Ile Cys Tyr Thr
 35 40 45

Pro Thr Phe Val Pro Leu Met Leu Val His Leu Leu Ser Ser Arg Lys
 50 55 60
 Thr Ile Ser Phe Ala Val Cys Ala Ile Gln Met Cys Leu Ser Leu Ser
 65 70 75 80
 Thr Gly Ser Thr Glu Cys Leu Leu Leu Ala Ile Thr Ala Tyr Asp Arg
 85 90 95
 Tyr Leu Ala Ile Cys Gln Pro Leu Arg Tyr His Val Leu Met Ser His
 100 105 110
 Arg Leu Cys Val Leu Leu Met Gly Ala Ala Trp Val Leu Cys Leu Leu
 115 120 125
 Lys Ser Val Thr Glu Met Val Ile Ser Met Arg Leu Pro Phe Cys Gly
 130 135 140
 His His Val Val Ser His Phe Thr Cys Lys Ile Leu Ala Val Leu Lys
 145 150 155 160
 Leu Ala Cys Gly Asn Thr Ser Val Ser Glu Asp Phe Leu Leu Ala Gly
 165 170 175
 Ser Ile Leu Leu Leu Pro Val Pro Leu Ala Phe Ile Cys Leu Ser Tyr
 180 185 190
 Leu Leu Ile Leu Ala Thr Ile Leu Arg Val Pro Ser Ala Ala Arg Cys
 195 200 205
 Cys Lys Ala Phe Ser Thr Cys Leu Ala His Leu Ala Val Val Leu Leu
 210 215 220
 Phe Tyr Gly Thr Ile Ile Phe Met Tyr Leu Lys Pro Lys Ser Lys Glu
 225 230 235 240
 Ala His Ile Ser Asp Glu Val Phe Thr Val Leu Tyr Ala Met Val Thr
 245 250 255
 Thr Met Leu Asn Pro Thr Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys
 260 265 270
 Glu Ala Ala Arg Lys Val Trp Gly Arg Ser Arg Ala Ser Arg
 275 280 285

<210> 38
 <211> 312
 <212> PRT
 <213> Mus musculus

<400> 38
 Met Glu Pro Ser Asn Arg Thr Ala Val Ser Glu Phe Val Leu Lys Gly
 1 5 10 15
 Phe Ser Gly Tyr Pro Ala Leu Glu Arg Leu Leu Phe Pro Leu Cys Ser
 20 25 30

Val Met Tyr Leu Val Thr Leu Leu Gly Asn Thr Ala Ile Val Ala Val
35 40 45
Ser Met Leu Asp Ala Arg Leu His Thr Pro Met Tyr Phe Phe Leu Gly
50 55 60
Asn Leu Ser Ile Leu Asp Ile Cys Tyr Thr Ser Thr Phe Val Pro Leu
65 70 75 80
Met Leu Val His Leu Leu Ser Ser Arg Lys Thr Ile Ser Phe Thr Gly
85 90 95
Cys Ala Val Gln Met Cys Leu Ser Leu Ser Thr Gly Ser Thr Glu Cys
100 105 110
Leu Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Gln
115 120 125
Pro Leu Arg Tyr Pro Val Leu Met Ser His Arg Leu Cys Leu Met Leu
130 135 140
Ala Gly Ala Ser Trp Val Leu Cys Leu Phe Lys Ser Val Ala Glu Thr
145 150 155 160
Val Ile Ala Met Arg Leu Pro Phe Cys Gly His His Val Ile Arg His
165 170 175
Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Thr Cys Gly Asp Thr
180 185 190
Ser Val Ser Asp Ala Phe Leu Leu Val Gly Ala Ile Leu Leu Leu Pro
195 200 205
Ile Pro Leu Thr Leu Ile Cys Leu Ser Tyr Met Leu Ile Leu Ala Thr
210 215 220
Ile Leu Arg Val Pro Ser Ala Thr Gly Arg Ser Lys Ala Phe Ser Thr
225 230 235 240
Cys Ser Ala His Leu Ala Val Val Leu Leu Phe Tyr Ser Thr Ile Ile
245 250 255
Phe Met Tyr Met Lys Pro Lys Ser Lys Glu Ala Arg Ile Ser Asp Gln
260 265 270
Val Phe Thr Val Leu Tyr Ala Val Val Thr Pro Met Leu Asn Pro Ile
275 280 285
Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Glu Ala Ala Arg Lys Ala
290 295 300
Trp Gly Ser Arg Trp Ala Cys Arg
305 310

<210> 39

<211> 216
 <212> PRT
 <213> Homo sapiens

<400> 39

Thr	Leu	Asp	Ile	Cys	Tyr	Thr	Pro	Thr	Phe	Val	Pro	Leu	Met	Leu	Val
1				5					10					15	
His	Leu	Leu	Ser	Ser	Arg	Lys	Thr	Ile	Ser	Phe	Ala	Val	Cys	Ala	Ile
			20					25					30		
Gln	Met	Cys	Leu	Ser	Leu	Ser	Thr	Gly	Ser	Thr	Glu	Cys	Leu	Leu	Leu
		35					40					45			
Ala	Ile	Thr	Ala	Tyr	Asp	Arg	Tyr	Leu	Ala	Ile	Cys	Gln	Pro	Leu	Arg
	50					55					60				
Tyr	His	Val	Leu	Met	Ser	His	Arg	Leu	Cys	Val	Leu	Leu	Met	Gly	Ala
65					70					75					80
Ala	Trp	Val	Leu	Cys	Leu	Leu	Lys	Ser	Val	Thr	Glu	Met	Val	Ile	Ser
				85					90					95	
Met	Arg	Leu	Pro	Phe	Cys	Gly	His	His	Val	Val	Ser	His	Phe	Thr	Cys
			100					105					110		
Lys	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Gly	Asn	Thr	Ser	Val	Ser
	115						120					125			
Glu	Asp	Phe	Leu	Leu	Ala	Gly	Ser	Ile	Leu	Leu	Leu	Pro	Val	Pro	Leu
	130					135						140			
Ala	Phe	Ile	Cys	Leu	Ser	Tyr	Leu	Leu	Ile	Leu	Ala	Thr	Ile	Leu	Arg
145					150					155					160
Val	Pro	Ser	Ala	Ala	Arg	Cys	Cys	Lys	Ala	Phe	Ser	Thr	Cys	Leu	Ala
				165					170					175	
His	Leu	Ala	Val	Val	Leu	Leu	Phe	Tyr	Gly	Thr	Ile	Ile	Phe	Met	Tyr
			180					185					190		
Leu	Lys	Pro	Lys	Ser	Lys	Glu	Ala	His	Ile	Ser	Asp	Glu	Val	Phe	Thr
		195					200					205			
Val	Leu	Tyr	Ala	Met	Val	Thr	Thr								
	210					215									

<210> 40
 <211> 319
 <212> PRT
 <213> Mus musculus

<400> 40

Met	Asp	Arg	Ser	Asn	Glu	Thr	Ala	Pro	Leu	Ser	Gly	Phe	Ile	Leu	Leu
1				5					10					15	

Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile
 20 25 30
 Leu Met Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu
 35 40 45
 Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Val Pro
 65 70 75 80
 Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser
 85 90 95
 Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu
 100 105 110
 Cys Val Leu Leu Ser Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Asn Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ala Ala Tyr Val Pro
 130 135 140
 Met Ala Ala Ser Ser Trp Ala Gly Gly Ile Thr Asn Ser Val Val Gln
 145 150 155 160
 Thr Ser Leu Ala Met Arg Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
 165 170 175
 His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Ser Ile Asn Val Ile Ser Met Val Val Ala Asn Met Ile Phe Leu
 195 200 205
 Ala Val Pro Val Leu Phe Ile Phe Val Ser Tyr Val Phe Ile Leu Val
 210 215 220
 Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile
 245 250 255
 Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp
 260 265 270
 Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
 275 280 285
 Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300
 Arg Ala Ala Val Arg Asn Leu Val Gly Gln Lys His Leu Thr Glu
 305 310 315

<210> 41
 <211> 319
 <212> PRT
 <213> Mus musculus

<400> 41

Met	Glu	Arg	Ser	Asn	Lys	Thr	Thr	Pro	Val	Ser	Ser	Phe	Ile	Leu	Leu
1				5					10					15	
Gly	Leu	Ser	Ala	His	Pro	Lys	Leu	Glu	Lys	Thr	Phe	Phe	Val	Leu	Ile
			20					25					30		
Leu	Leu	Met	Tyr	Leu	Val	Ile	Leu	Leu	Gly	Asn	Val	Val	Leu	Ile	Leu
		35					40					45			
Val	Ser	Ile	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu
	50					55					60				
Gly	Asn	Leu	Ser	Phe	Leu	Asp	Ile	Cys	Tyr	Thr	Thr	Ser	Ser	Val	Pro
65					70				75						80
Leu	Ile	Leu	Asp	Ser	Phe	Leu	Thr	Pro	Arg	Lys	Thr	Ile	Ser	Phe	Ser
				85					90					95	
Gly	Cys	Ala	Val	Gln	Met	Phe	Leu	Ser	Phe	Ala	Met	Gly	Ala	Thr	Glu
			100					105					110		
Cys	Val	Leu	Leu	Gly	Met	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys
	115						120					125			
Asn	Pro	Leu	Arg	Tyr	Pro	Val	Val	Met	Ser	Lys	Ala	Ala	Tyr	Val	Pro
	130					135						140			
Met	Ala	Ala	Gly	Ser	Trp	Val	Ser	Gly	Ser	Ile	Thr	Ala	Thr	Val	Gln
145					150					155					160
Ile	Ser	Leu	Ala	Met	Thr	Leu	Pro	Phe	Cys	Gly	Asp	Asn	Val	Ile	Asn
				165					170					175	
His	Phe	Thr	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp
			180					185					190		
Ile	Ser	Ile	Asn	Val	Ile	Ser	Met	Ala	Val	Ala	Asn	Ala	Met	Phe	Leu
	195						200					205			
Gly	Val	Pro	Val	Leu	Phe	Ile	Phe	Val	Ser	Tyr	Ile	Phe	Ile	Leu	Ser
	210					215					220				
Thr	Ile	Leu	Arg	Ile	Pro	Ser	Ala	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ser
225					230					235					240
Thr	Cys	Ser	Ala	His	Leu	Thr	Val	Val	Leu	Val	Phe	Tyr	Gly	Thr	Ile
				245					250					255	
Leu	Phe	Met	Tyr	Gly	Lys	Pro	Lys	Ser	Lys	Asp	Pro	Leu	Gly	Ala	Asp
			260					265					270		

Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
 275 280 285

Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300

Lys Ala Ala Val Thr Asn Leu Val Gly Gln Lys His Phe Lys Trp
 305 310 315

<210> 42
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 42
 Met Glu Gly Ala Asn Gln Ser Thr Val Ala Glu Phe Val Leu Leu Gly
 1 5 10 15

Leu Ser Asp His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile Leu
 20 25 30

Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu Val
 35 40 45

Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60

Asp Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Ile Pro Leu
 65 70 75 80

Val Leu Asp Gly Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser Gly
 85 90 95

Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu Cys
 100 105 110

Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125

Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ser Ala Tyr Val Pro Met
 130 135 140

Ala Val Ser Ser Trp Val Ala Gly Gly Ala Asn Ser Leu Val Gln Ile
 145 150 155 160

Ser Leu Ala Val Gln Leu Pro Phe Cys Gly Asp Asn Val Ile Asn His
 165 170 175

Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Ile
 180 185 190

Ser Ile Asn Val Ile Ser Met Gly Val Ala Asn Val Ile Phe Leu Gly
 195 200 205

Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser Thr

210	215	220
Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr		
225	230	235 240
Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile Leu		
	245	250 255
Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp Lys		
	260	265 270
Gln Asp Val Ser Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Leu Thr		
	275	280 285
Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys		
	290	295 300
Ala Ala Val Arg Asn Leu Val Gly Gln Lys Cys Leu Ile Gln		
305	310	315

<210> 43
 <211> 2028
 <212> DNA
 <213> Homo sapiens

<400> 43

tgctatagcc	ccagcacttg	atacctagca	cagaataggt	acttaataaa	tacttagtgg	60
atgaataaat	ctgaaatact	atggccataa	tttggtcaca	tgaagccgta	atgtagaaaa	120
gatgcttcct	gttaatgacc	aaaaacactt	tggattccaa	acgatcattt	taaacatgaa	180
tctttctctg	ctgtctcctc	tgaccccatc	ctggggagag	cagagaggag	cctaggggac	240
tagaatgtgc	cccatcctcc	cctcagtgac	gtccacagaa	ctgcagcgct	gagaaggcca	300
gattgcagat	ctgaagtcca	actcctcat	tatacagatg	gtgaaactaa	attccagaga	360
gggaggctga	cctgctgcag	ctcagacatc	aggtcactgg	gctcccaggc	cagttggagc	420
tttttccaaa	aagctgggtg	gtccagatgg	aaaaggagag	agaatgagat	gaagtgggca	480
aaccagacag	ctgtgacgga	atacgtcctg	atggggctac	acgagcactg	taacctggag	540
gtgggtcctgt	ttgtgttctg	cctgggcctc	tactccgtga	atgtgttggg	gaacgcctc	600
ctcatagggc	tgaacgtgct	gcaccctcgc	ctgcacaacc	ccatgtactt	ccttctcagc	660
aacctctccc	tcatggacat	ctgcggcacc	tcctcctttg	tgccctctcat	gctagacaat	720
ttcctggaat	cccagaggac	catttccttc	cctggctgtg	ccctgcagat	gtacctgacc	780
ctggcgctgg	gatcaacgga	gtgctgctg	ctggctgtga	tggcatatga	ccgttatgtg	840
gctatctgcc	agccgcttag	gtaccagag	ctcatgagtg	ggcagacctg	catgcagatg	900
gcagcgctga	gctggggggc	aggctttgcc	aactcactgc	tacagtccat	ccttgtctgg	960
cacctccct	tctgtggcca	cgtcatcaac	tacttctatg	agatcttggc	agtgctaaaa	1020
ctggcctgtg	gggacatctc	cctcaatgcg	ctggcattaa	tgggtggccac	agccgtcctg	1080
acactggccc	ccctcttgct	catctgcctg	tcttaccttt	tcatectgtc	tgccatcctt	1140
agggtaccct	ctgctgcagg	ccggtgcaaa	gccttctcca	cctgctcagc	ccaccgcaca	1200
gtgggtggtg	ttttttatgg	gacaatctcc	ttcatgtact	tcaaacccaa	ggccaaggat	1260
cccaacgtgg	ataagactgt	cgcattgttc	tacgggggtg	tgacgccttc	gctgaacccc	1320
atcattttaca	gcctgaggaa	tgcagaggtg	aaagctgccg	tcctaactct	gctgagagga	1380
ggtttgctct	ccaggaaagc	atcccactgc	tactgctgcc	ctctgcccct	gtcagctggc	1440
ataggctagg	ttgtgctgtg	gtcatgacct	caaaccttga	gaggcttaaa	gccattaagg	1500
tttgtttctt	gctcctgatg	caggtccacc	agaggctggg	ggggcttctg	ctccgcatca	1560
tggtcttcac	ccctctggga	ctcaggatga	caaaacagct	accattggga	acactgctgg	1620
tcaccatgac	aaaaagaaaa	gggaaagtaa	caaagcctac	actgactctt	aaagcttcta	1680
ctcagaagtg	gctgtgttgc	ctccacctac	atttcagtgg	ccaacacaa	ggcaacagga	1740
aggcacagga	ccacacctat	tgtaagggg	gaaaagcaca	ctatcgtgtg	tctggatggc	1800

aaacgagagg gacagagaga tttgtgaatg gcctaataacgac taccacacca gctgacagtg 1860
tcaacccaag agctatggga gggttggctt tctttatcct gaccatctat ccttcacggg 1920
ctgctgcca gttaatcgtc ccaagaaagc tctggtagc tcacgtgtg tagctttata 1980
ctgagtcaac caaactaggc tagaggggtg gggtagggt tggccaca 2028

<210> 44
<211> 326
<212> PRT
<213> Homo sapiens

<400> 44
Met Lys Trp Ala Asn Gln Thr Ala Val Thr Glu Tyr Val Leu Met Gly
1 5 10 15
Leu His Glu His Cys Asn Leu Glu Val Val Leu Phe Val Phe Cys Leu
20 25 30
Gly Ile Tyr Ser Val Asn Val Leu Gly Asn Ala Leu Leu Ile Gly Leu
35 40 45
Asn Val Leu His Pro Arg Leu His Asn Pro Met Tyr Phe Leu Leu Ser
50 55 60
Asn Leu Ser Leu Met Asp Ile Cys Gly Thr Ser Ser Phe Val Pro Leu
65 70 75 80
Met Leu Asp Asn Phe Leu Glu Thr Gln Arg Thr Ile Ser Phe Pro Gly
85 90 95
Cys Ala Leu Gln Met Tyr Leu Thr Leu Ala Leu Gly Ser Thr Glu Cys
100 105 110
Leu Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Gln
115 120 125
Pro Leu Arg Tyr Pro Glu Leu Met Ser Gly Gln Thr Cys Met Gln Met
130 135 140
Ala Ala Leu Ser Trp Gly Thr Gly Phe Ala Asn Ser Leu Leu Gln Ser
145 150 155 160
Ile Leu Val Trp His Leu Pro Phe Cys Gly His Val Ile Asn Tyr Phe
165 170 175
Tyr Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asp Ile Ser Leu
180 185 190
Asn Ala Leu Ala Leu Met Val Ala Thr Ala Val Leu Thr Leu Ala Pro
195 200 205
Leu Leu Leu Ile Cys Leu Ser Tyr Leu Phe Ile Leu Ser Ala Ile Leu
210 215 220
Arg Val Pro Ser Ala Ala Gly Arg Cys Lys Ala Phe Ser Thr Cys Ser
225 230 235 240

Ala His Arg Thr Val Val Val Val Phe Tyr Gly Thr Ile Ser Phe Met
245 250 255

Tyr Phe Lys Pro Lys Ala Lys Asp Pro Asn Val Asp Lys Thr Val Ala
260 265 270

Leu Phe Tyr Gly Val Val Thr Pro Ser Leu Asn Pro Ile Ile Tyr Ser
275 280 285

Leu Arg Asn Ala Glu Val Lys Ala Ala Val Leu Thr Leu Leu Arg Gly
290 295 300

Gly Leu Leu Ser Arg Lys Ala Ser His Cys Tyr Cys Cys Pro Leu Pro
305 310 315 320

Leu Ser Ala Gly Ile Gly
325

<210> 45
<211> 315
<212> PRT
<213> Mus musculus

<400> 45
Met Ala Gly Thr Asn His Thr Glu Val Ile Glu Tyr Val Leu Leu Gly
1 5 10 15

Leu Gln Asp His His Gly Leu Glu Ile Ala Leu Phe Val Leu Cys Leu
20 25 30

Gly Ile Tyr Cys Met Thr Leu Leu Gly Asn Ser Phe Leu Val Gly Leu
35 40 45

Ile Val Leu Asp Thr His Leu His Ser Pro Met Tyr Phe Phe Ile Ser
50 55 60

Asn Leu Ser Leu Ile Asp Ile Cys Gly Thr Ser Ser Phe Thr Pro Met
65 70 75 80

Met Leu Leu Asn Phe Leu Asp Val Gln Arg Thr Ile Ser Phe Pro Ser
85 90 95

Cys Ala Leu Gln Met Tyr Leu Thr Leu Ala Leu Gly Thr Thr Glu Cys
100 105 110

Leu Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Gln
115 120 125

Pro Leu Arg Tyr Pro Glu Leu Val Asn Gly Arg Tyr Ala Ser Arg Trp
130 135 140

Gln Asp Lys Leu Gly Thr Gly Phe Ala Asn Ser Leu Leu His Ser Ile
145 150 155 160

Leu Val Trp His Leu Pro Phe Cys Gly His Tyr Ile Ile Asn His Phe
165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asp Ile Ser
 180 185 190
 Leu Asn Ala Leu Ile Leu Thr Val Ala Thr Ala Val Leu Thr Met Thr
 195 200 205
 Pro Leu Leu Leu Ile Cys Leu Ser Tyr Ile Phe Ile Leu Ala Ala Ile
 210 215 220
 Leu Arg Val Pro Ser Ala Ala Gly Arg Ser Lys Ala Phe Ser Thr Cys
 225 230 235 240
 Ser Ala His Leu Thr Val Val Val Ile Phe Tyr Gly Thr Ile Thr Phe
 245 250 255
 Met Tyr Leu Lys Pro Lys Asp Gln Asp Pro Ser Val Gly Lys Ile Ile
 260 265 270
 Thr Leu Leu Tyr Ala Ile Val Ala Pro Ser Leu Asn Ala Phe Ile Tyr
 275 280 285
 Ser Leu Arg Asn Ser Glu Val Lys Ala Ala Val Thr Ala Leu Leu Trp
 290 295 300
 Gly Gly Leu Leu Thr Arg Lys Met Ser His Phe
 305 310 315

<210> 46
 <211> 318
 <212> PRT
 <213> Mus musculus

<400> 46
 Met Asp Val Ser Asn Gln Thr Thr Val Thr Glu Phe Val Leu Leu Gly
 1 5 10 15
 Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile Leu
 20 25 30
 Ser Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu Val
 35 40 45
 Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60
 Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Val Pro Leu
 65 70 75 80
 Val Leu Asp Gly Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser Gly
 85 90 95
 Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu Cys
 100 105 110
 Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Asn

115				120				125							
Pro	Leu	Arg	Tyr	Pro	Val	Val	Met	Asn	Lys	Ala	Ala	Tyr	Val	Pro	Met
130				135				140							
Ala	Val	Ser	Ser	Trp	Val	Ala	Gly	Gly	Ala	Asn	Ser	Leu	Val	Gln	Ile
145				150				155				160			
Ser	Leu	Ala	Val	Gln	Leu	Pro	Phe	Cys	Gly	Asp	Asn	Val	Ile	Asn	His
				165				170				175			
Phe	Ile	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Ile
				180				185				190			
Ser	Ile	Asn	Val	Ile	Ser	Met	Gly	Val	Ala	Asn	Val	Ile	Phe	Leu	Gly
195								200				205			
Val	Pro	Val	Leu	Phe	Ile	Phe	Val	Ser	Tyr	Ile	Phe	Ile	Leu	Ser	Thr
210				215				220							
Ile	Leu	Arg	Ile	Pro	Ser	Ala	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ser	Thr
225				230				235				240			
Cys	Ser	Ala	His	Leu	Thr	Val	Val	Ile	Ile	Phe	Tyr	Gly	Thr	Ile	Leu
				245				250				255			
Phe	Met	Tyr	Gly	Lys	Pro	Lys	Ser	Lys	Asp	Pro	Leu	Gly	Ala	Asp	Lys
260								265				270			
Gln	Asp	Leu	Ala	Asp	Lys	Leu	Ile	Ser	Leu	Phe	Tyr	Gly	Leu	Leu	Thr
275				280				285							
Pro	Met	Leu	Asn	Pro	Ile	Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys
290				295				300							
Ala	Ala	Val	Arg	Asn	Leu	Ala	Ser	His	Arg	Cys	Leu	Thr	Phe		
305				310				315							

<210> 47
 <211> 318
 <212> PRT
 <213> Mus musculus

<400> 47
 Met Glu Gly Ala Asn Gln Ser Thr Val Ala Glu Phe Val Leu Leu Gly
 1 5 10 15
 Leu Ser Asp His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile Leu
 20 25 30
 Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu Val
 35 40 45
 Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Gly
 50 55 60

Asp	Leu	Ser	Phe	Leu	Asp	Ile	Cys	Tyr	Thr	Thr	Ser	Ser	Ile	Pro	Leu	65	70	75	80
Val	Leu	Asp	Gly	Phe	Leu	Thr	Pro	Arg	Lys	Thr	Ile	Ser	Phe	Ser	Gly	85	90	95	
Cys	Ala	Val	Gln	Met	Phe	Leu	Ser	Phe	Ala	Met	Gly	Ala	Thr	Glu	Cys	100	105	110	
Val	Leu	Leu	Gly	Met	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	115	120	125	
Pro	Leu	Arg	Tyr	Pro	Val	Val	Met	Asn	Lys	Ser	Ala	Tyr	Val	Pro	Met	130	135	140	
Ala	Val	Ser	Ser	Trp	Val	Ala	Gly	Gly	Ala	Asn	Ser	Leu	Val	Gln	Ile	145	150	155	160
Ser	Leu	Ala	Val	Gln	Leu	Pro	Phe	Cys	Gly	Asp	Asn	Val	Ile	Asn	His	165	170	175	
Phe	Thr	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Ile	180	185	190	
Ser	Ile	Asn	Val	Ile	Ser	Met	Gly	Val	Ala	Asn	Val	Ile	Phe	Leu	Gly	195	200	205	
Val	Pro	Val	Leu	Phe	Ile	Phe	Val	Ser	Tyr	Ile	Phe	Ile	Leu	Ser	Thr	210	215	220	
Ile	Leu	Arg	Ile	Pro	Ser	Ala	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ser	Thr	225	230	235	240
Cys	Ser	Ala	His	Leu	Thr	Val	Val	Leu	Val	Phe	Tyr	Gly	Thr	Ile	Leu	245	250	255	
Phe	Met	Tyr	Gly	Lys	Pro	Lys	Ser	Lys	Asp	Pro	Leu	Gly	Ala	Asp	Lys	260	265	270	
Gln	Asp	Val	Ser	Asp	Lys	Leu	Ile	Ser	Leu	Phe	Tyr	Gly	Val	Leu	Thr	275	280	285	
Pro	Met	Leu	Asn	Pro	Ile	Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	290	295	300	
Ala	Ala	Val	Arg	Asn	Leu	Val	Gly	Gln	Lys	Cys	Leu	Ile	Gln			305	310	315	

<210> 48
 <211> 319
 <212> PRT
 <213> Mus musculus

<400> 48
 Met Asp Arg Ser Asn Glu Thr Ala Pro Leu Ser Gly Phe Ile Leu Leu
 1 5 10 15

Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile
 20 25 30
 Leu Met Met Tyr Leu Val Ile Leu Leu Gly Asn Gly Val Leu Ile Leu
 35 40 45
 Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Val Pro
 65 70 75 80
 Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser
 85 90 95
 Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu
 100 105 110
 Cys Val Leu Leu Ser Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Asn Pro Leu Arg Tyr Pro Val Val Met Asn Lys Ala Ala Tyr Val Pro
 130 135 140
 Met Ala Ala Ser Ser Trp Ala Gly Gly Ile Thr Asn Ser Val Val Gln
 145 150 155 160
 Thr Ser Leu Ala Met Arg Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
 165 170 175
 His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Ser Ile Asn Val Ile Ser Met Val Val Ala Asn Met Ile Phe Leu
 195 200 205
 Ala Val Pro Val Leu Phe Ile Phe Val Ser Tyr Val Phe Ile Leu Val
 210 215 220
 Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile
 245 250 255
 Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp
 260 265 270
 Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
 275 280 285
 Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300
 Arg Ala Ala Val Arg Asn Leu Val Gly Gln Lys His Leu Thr Glu
 305 310 315

<210> 49
 <211> 319
 <212> PRT
 <213> Mus musculus

<400> 49
 Met Glu Arg Ser Asn Lys Thr Thr Pro Val Ser Ser Phe Ile Leu Leu
 1 5 10 15
 Gly Leu Ser Ala His Pro Lys Leu Glu Lys Thr Phe Phe Val Leu Ile
 20 25 30
 Leu Leu Met Tyr Leu Val Ile Leu Leu Gly Asn Val Val Leu Ile Leu
 35 40 45
 Val Ser Ile Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu
 50 55 60
 Gly Asn Leu Ser Phe Leu Asp Ile Cys Tyr Thr Thr Ser Ser Val Pro
 65 70 75 80
 Leu Ile Leu Asp Ser Phe Leu Thr Pro Arg Lys Thr Ile Ser Phe Ser
 85 90 95
 Gly Cys Ala Val Gln Met Phe Leu Ser Phe Ala Met Gly Ala Thr Glu
 100 105 110
 Cys Val Leu Leu Gly Met Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 Asn Pro Leu Arg Tyr Pro Val Val Met Ser Lys Ala Ala Tyr Val Pro
 130 135 140
 Met Ala Ala Gly Ser Trp Val Ser Gly Ser Ile Thr Ala Thr Val Gln
 145 150 155 160
 Ile Ser Leu Ala Met Thr Leu Pro Phe Cys Gly Asp Asn Val Ile Asn
 165 170 175
 His Phe Thr Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Ser Ile Asn Val Ile Ser Met Ala Val Ala Asn Ala Met Phe Leu
 195 200 205
 Gly Val Pro Val Leu Phe Ile Phe Val Ser Tyr Ile Phe Ile Leu Ser
 210 215 220
 Thr Ile Leu Arg Ile Pro Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ala His Leu Thr Val Val Leu Val Phe Tyr Gly Thr Ile
 245 250 255
 Leu Phe Met Tyr Gly Lys Pro Lys Ser Lys Asp Pro Leu Gly Ala Asp

260 265 270
 Lys Gln Asp Leu Ala Asp Lys Leu Ile Ser Leu Phe Tyr Gly Val Val
 275 280 285
 Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Lys Asp Val
 290 295 300
 Lys Ala Ala Val Thr Asn Leu Val Gly Gln Lys His Phe Lys Trp
 305 310 315

<210> 50
 <211> 766
 <212> DNA
 <213> Homo sapiens

<400> 50
 gtcagcctcc aatatacact taacacatcc aactgccttc ttgttggtgg ggattccagg 60
 cctggaacac ctgcacatct ggatctccat ccctttctgc ttagcatgta cactggccct 120
 gcttggaacac tgcactctcc ttctcatcat ccaggctgat gcagccctcc atgaacccat 180
 gtacctcttt ctggccatgt tggcagccat cgacctggtc ctttcctcct cagcactgcc 240
 caagatgctt gccatattct gggtcagga tcgggagata aacttccttg cctgtctggc 300
 ccagatgttc ttccttcact ccttctccat catggagtca gcagtgtgc tggccatggc 360
 ctttgaccgc tatgtggcta tctgcaagcc actgcactac accaagggtc tgactgggtc 420
 cctcatcacc aagattttta ttgtggtgtt ggacctgtc cttgttatcc tgtcttatat 480
 ctttattctt caggcagttc tactgcttgc ctctcaggag gcccgctaca aggcatttgg 540
 gacatgtgtc tctcatatag gtgccatctt agccttctac acaactgtgg tcatctcttc 600
 agtcatgcac cgtgtagccc gccatgtgtc ccctcatgtc cacatcctcc ttaccaattt 660
 ctatctgtc tttccacca tgggtcaatcc cataatctat ggtgtcaaga ccaagcaaat 720
 ccgtgagagc atcttgggag tattcccaag aaaggatatg tagagg 766

<210> 51
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 51
 Ser Ala Ser Asn Ile Thr Leu Thr His Pro Thr Ala Phe Leu Leu Val
 1 5 10 15
 Gly Ile Pro Gly Leu Glu His Leu His Ile Trp Ile Ser Ile Pro Phe
 20 25 30
 Cys Leu Ala Cys Thr Leu Ala Leu Leu Gly Asn Cys Thr Leu Leu Leu
 35 40 45
 Ile Ile Gln Ala Asp Ala Ala Leu His Glu Pro Met Tyr Leu Phe Leu
 50 55 60
 Ala Met Leu Ala Ala Ile Asp Leu Val Leu Ser Ser Ser Ala Leu Pro
 65 70 75 80
 Lys Met Leu Ala Ile Phe Trp Phe Arg Asp Arg Glu Ile Asn Phe Phe
 85 90 95

Ala Cys Leu Ala Gln Met Phe Phe Leu His Ser Phe Ser Ile Met Glu
100 105 110

Ser Ala Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys
115 120 125

Lys Pro Leu His Tyr Thr Lys Val Leu Thr Gly Ser Leu Ile Thr Lys
130 135 140

Ile Phe Ile Val Val Leu Asp Leu Leu Leu Val Ile Leu Ser Tyr Ile
145 150 155 160

Phe Ile Leu Gln Ala Val Leu Leu Leu Ala Ser Gln Glu Ala Arg Tyr
165 170 175

Lys Ala Phe Gly Thr Cys Val Ser His Ile Gly Ala Ile Leu Ala Phe
180 185 190

Tyr Thr Thr Val Val Ile Ser Ser Val Met His Arg Val Ala Arg His
195 200 205

Ala Ala Pro His Val His Ile Leu Leu Thr Asn Phe Tyr Leu Leu Phe
210 215 220

Pro Pro Met Val Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys Gln Ile
225 230 235 240

Arg Glu Ser Ile Leu Gly Val Phe Pro Arg Lys Asp Met
245 250

<210> 52
<211> 321
<212> PRT
<213> Mus musculus

<400> 52
Met Asn Ser Lys Ala Ser Met Leu Gly Thr Asn Phe Thr Ile Ile His
1 5 10 15

Pro Thr Val Phe Ile Leu Leu Gly Ile Pro Gly Leu Glu Gln Tyr His
20 25 30

Thr Trp Leu Ser Ile Pro Phe Cys Leu Met Tyr Ile Ala Ala Val Leu
35 40 45

Gly Asn Gly Ala Leu Ile Leu Val Val Leu Ser Glu Arg Thr Leu His
50 55 60

Glu Pro Met Tyr Val Phe Leu Ser Met Leu Ala Gly Thr Asp Ile Leu
65 70 75 80

Leu Ser Thr Thr Thr Val Pro Lys Thr Leu Ala Ile Phe Trp Phe His
85 90 95

Ala Gly Glu Ile Pro Phe Asp Ala Cys Ile Ala Gln Met Phe Phe Ile
100 105 110

His Val Ala Phe Val Ala Glu Ser Gly Ile Leu Leu Ala Met Ala Phe
 115 120 125
 Asp Arg Tyr Val Ala Ile Cys Thr Pro Leu Arg Tyr Ser Ala Val Leu
 130 135 140
 Thr Pro Met Ala Ile Gly Lys Met Thr Leu Ala Ile Trp Gly Arg Ser
 145 150 155 160
 Ile Gly Thr Ile Phe Pro Ile Ile Phe Leu Leu Lys Arg Leu Ser Tyr
 165 170 175
 Cys Arg Thr Asn Val Ile Pro His Ser Tyr Cys Glu His Ile Gly Val
 180 185 190
 Ala Arg Leu Ala Cys Ala Asp Ile Thr Val Asn Ile Trp Tyr Gly Phe
 195 200 205
 Ser Val Pro Met Ala Ser Val Leu Val Asp Val Ala Leu Ile Gly Ile
 210 215 220
 Ser Tyr Thr Leu Ile Leu Gln Ala Val Phe Arg Leu Pro Ser Gln Asp
 225 230 235 240
 Ala Arg His Lys Ala Leu Asn Thr Cys Gly Ser His Ile Gly Val Ile
 245 250 255
 Leu Leu Phe Phe Ile Pro Ser Phe Phe Thr Phe Leu Thr His Arg Phe
 260 265 270
 Gly Lys Asn Ile Pro His His Val His Ile Leu Leu Ala Asn Leu Tyr
 275 280 285
 Val Leu Val Pro Pro Met Leu Asn Pro Ile Ile Tyr Gly Ala Lys Thr
 290 295 300
 Lys Gln Ile Arg Asp Ser Met Thr Arg Met Leu Ser Val Val Trp Lys
 305 310 315 320
 Ser

<210> 53
 <211> 320
 <212> PRT
 <213> Rattus norvegicus

<400> 53
 Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Met Leu Ile Gly Ile
 1 5 10 15
 Pro Gly Leu Glu Glu Ala His Phe Trp Phe Gly Phe Pro Leu Leu Ser
 20 25 30
 Met Tyr Ala Val Ala Leu Phe Gly Asn Cys Ile Val Val Phe Ile Val

35					40					45									
Arg	Thr	Glu	Arg	Ser	Leu	His	Ala	Pro	Met	Tyr	Leu	Phe	Leu	Cys	Met				
50					55					60									
Leu	Ala	Ala	Ile	Asp	Leu	Ala	Leu	Ser	Thr	Ser	Thr	Met	Pro	Lys	Ile				
65					70					75					80				
Leu	Ala	Leu	Phe	Trp	Phe	Asp	Ser	Arg	Glu	Ile	Thr	Phe	Asp	Ala	Cys				
85					90					95									
Leu	Ala	Gln	Met	Phe	Phe	Ile	His	Ala	Leu	Ser	Ala	Ile	Glu	Ser	Thr				
100					105					110									
Ile	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His	Pro				
115					120					125									
Leu	Arg	His	Ala	Ala	Val	Leu	Asn	Asn	Thr	Val	Thr	Val	Gln	Ile	Gly				
130					135					140									
Met	Val	Ala	Leu	Val	Arg	Gly	Ser	Leu	Phe	Phe	Phe	Pro	Leu	Pro	Leu				
145					150					155					160				
Leu	Ile	Lys	Arg	Leu	Ala	Phe	Cys	His	Ser	Asn	Val	Leu	Ser	His	Ser				
165					170					175									
Tyr	Cys	Val	His	Gln	Asp	Val	Met	Lys	Leu	Ala	Tyr	Thr	Asp	Thr	Leu				
180					185					190									
Pro	Asn	Val	Val	Tyr	Gly	Leu	Thr	Ala	Ile	Leu	Leu	Val	Met	Gly	Val				
195					200					205									
Asp	Val	Met	Phe	Ile	Ser	Leu	Ser	Tyr	Phe	Leu	Ile	Ile	Arg	Ala	Val				
210					215					220									
Leu	Gln	Leu	Pro	Ser	Lys	Ser	Glu	Arg	Ala	Lys	Ala	Phe	Gly	Thr	Cys				
225					230					235					240				
Val	Ser	His	Ile	Gly	Val	Val	Leu	Ala	Phe	Tyr	Val	Pro	Leu	Ile	Gly				
245					250					255									
Leu	Ser	Val	Val	His	Arg	Phe	Gly	Asn	Ser	Leu	Asp	Pro	Ile	Val	His				
260					265					270									
Val	Leu	Met	Gly	Asp	Val	Tyr	Leu	Leu	Leu	Pro	Pro	Val	Ile	Asn	Pro				
275					280					285									
Ile	Ile	Tyr	Gly	Ala	Lys	Thr	Lys	Gln	Ile	Arg	Thr	Arg	Val	Leu	Ala				
290					295					300									
Met	Phe	Lys	Ile	Ser	Cys	Asp	Lys	Asp	Ile	Glu	Ala	Gly	Gly	Asn	Thr				
305					310					315					320				

<210> 54
 <211> 326
 <212> PRT
 <213> Mus musculus

<400> 54

Met	Lys	Val	Ala	Ser	Ser	Phe	His	Asn	Asp	Thr	Asn	Pro	Gln	Asp	Val
1				5					10					15	
Trp	Tyr	Val	Leu	Ile	Gly	Ile	Pro	Gly	Leu	Glu	Asp	Leu	His	Ser	Trp
		20						25					30		
Ile	Ala	Ile	Pro	Ile	Cys	Ser	Met	Tyr	Ile	Val	Ala	Val	Ile	Gly	Asn
		35					40					45			
Val	Leu	Leu	Ile	Phe	Leu	Ile	Val	Thr	Glu	Arg	Ser	Leu	His	Glu	Pro
	50					55					60				
Met	Tyr	Phe	Phe	Leu	Ser	Met	Leu	Ala	Leu	Ala	Asp	Leu	Leu	Leu	Ser
65					70					75					80
Thr	Ala	Thr	Ala	Pro	Lys	Met	Leu	Ala	Ile	Phe	Trp	Phe	His	Ser	Arg
				85					90					95	
Gly	Ile	Ser	Phe	Gly	Ser	Cys	Val	Ser	Gln	Met	Phe	Phe	Ile	His	Phe
		100						105					110		
Ile	Phe	Val	Ala	Glu	Ser	Ala	Ile	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg
	115						120					125			
Tyr	Val	Ala	Ile	Cys	Tyr	Pro	Leu	Arg	Tyr	Thr	Thr	Ile	Leu	Thr	Ser
	130					135						140			
Ser	Val	Ile	Gly	Lys	Ile	Gly	Thr	Ala	Ala	Val	Val	Arg	Ser	Phe	Leu
145					150					155					160
Ile	Cys	Phe	Pro	Phe	Ile	Phe	Leu	Val	Tyr	Arg	Leu	Leu	Tyr	Cys	Gly
			165						170					175	
Lys	His	Ile	Ile	Pro	His	Ser	Tyr	Cys	Glu	His	Met	Gly	Ile	Ala	Arg
		180						185					190		
Leu	Ala	Cys	Asp	Asn	Ile	Thr	Val	Asn	Ile	Ile	Tyr	Gly	Leu	Thr	Met
		195					200					205			
Ala	Leu	Leu	Ser	Thr	Gly	Leu	Asp	Ile	Leu	Leu	Ile	Ile	Ile	Ser	Tyr
	210					215					220				
Thr	Met	Ile	Leu	Arg	Thr	Val	Phe	Gln	Ile	Pro	Ser	Trp	Ala	Ala	Arg
225					230					235					240
Tyr	Lys	Ala	Leu	Asn	Thr	Cys	Gly	Ser	His	Ile	Cys	Val	Ile	Leu	Leu
			245						250					255	
Phe	Tyr	Thr	Pro	Ala	Phe	Phe	Ser	Phe	Phe	Ala	His	Arg	Phe	Gly	Gly
		260						265						270	

Lys Thr Val Pro Arg His Ile His Ile Leu Val Ala Asn Leu Tyr Val
 275 280 285
 Val Val Pro Pro Met Leu Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys
 290 295 300
 Gln Ile Gln Asp Arg Val Val Phe Leu Phe Ser Ser Val Ser Thr Cys
 305 310 315 320
 Gln His Asp Ser Arg Cys
 325

<210> 55
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 55
 Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile
 1 5 10 15
 Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser
 20 25 30
 Met Tyr Val Val Ala Met Phe Gly Asn Cys Ile Val Val Phe Ile Val
 35 40 45
 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
 50 55 60
 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
 65 70 75 80
 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Phe Glu Ala Cys
 85 90 95
 Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
 100 105 110
 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
 115 120 125
 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly
 130 135 140
 Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu
 145 150 155 160
 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
 165 170 175
 Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu
 180 185 190
 Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
 195 200 205

Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val
 210 215 220
 Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
 225 230 235 240
 Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
 245 250 255
 Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg
 260 265 270
 Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
 275 280 285
 Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
 290 295 300
 Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys
 305 310 315 320

<210> 56
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 56
 Met Ser Asp Ser Asn Leu Ser Asp Asn His Leu Pro Asp Thr Phe Phe
 1 5 10 15
 Leu Thr Gly Ile Pro Gly Leu Glu Ala Ala His Phe Trp Ile Ala Ile
 20 25 30
 Pro Phe Cys Ala Met Tyr Leu Val Ala Leu Val Gly Asn Ala Ala Leu
 35 40 45
 Ile Leu Val Ile Ala Met Asp Asn Ala Leu His Ala Pro Met Tyr Leu
 50 55 60
 Phe Leu Cys Leu Leu Ser Leu Thr Asp Leu Ala Leu Ser Ser Thr Thr
 65 70 75 80
 Val Pro Lys Met Leu Ala Ile Leu Trp Leu His Ala Gly Glu Ile Ser
 85 90 95
 Phe Gly Gly Cys Leu Ala Gln Met Phe Cys Val His Ser Ile Tyr Ala
 100 105 110
 Leu Glu Ser Ser Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
 115 120 125
 Ile Cys Asn Pro Leu Arg Tyr Thr Thr Ile Leu Asn His Ala Val Ile

130	135	140
Gly Arg Ile Gly Phe Val Gly Leu Phe Arg Ser Val Ala Ile Val Ser		
145	150	155 160
Pro Phe Ile Phe Leu Leu Arg Arg Leu Pro Tyr Cys Gly His Arg Val		
	165	170 175
Met Thr His Thr Tyr Cys Glu His Met Gly Ile Ala Arg Leu Ala Cys		
	180	185 190
Ala Asn Ile Thr Val Asn Ile Val Tyr Gly Leu Thr Val Ala Leu Leu		
	195	200 205
Ala Met Gly Leu Asp Ser Ile Leu Ile Ala Ile Ser Tyr Gly Phe Ile		
	210	215 220
Leu His Ala Val Phe His Leu Pro Ser His Asp Ala Gln His Lys Ala		
225	230	235 240
Leu Ser Thr Cys Gly Ser His Ile Gly Ile Ile Leu Val Phe Tyr Ile		
	245	250 255
Pro Ala Phe Phe Ser Phe Leu Thr His Arg Phe Gly His His Glu Val		
	260	265 270
Pro Lys His Val His Ile Phe Leu Ala Asn Leu Tyr Val Leu Val Pro		
	275	280 285
Pro Val Leu Asn Pro Ile Leu Tyr Gly Ala Arg Thr Lys Glu Ile Arg		
	290	295 300
Ser Arg Leu Leu Lys Leu Leu His Leu Gly Lys Thr Ser Ile		
305	310	315

<210> 57
 <211> 1000
 <212> DNA
 <213> Homo sapiens

<400> 57
 ccatggaggc tgccaatgag tcttcagagg gaatctcatt cgttttattg ggactgacaa 60
 caagtcctgg acagcagcgg cctctctttg tgctgttctt gctcttgtat gtggccagcc 120
 tcttgggcaa tggactcatt gtggctgcca tccaggccag tccagccctt catgcaccca 180
 tgtacttctt gctggcccac ctgtcctttg ctgacctctg cttcgccctc gtcactgtgc 240
 ccaagatgtt ggccaacttg ttggcccatg accactccat ctcgctggct ggctgcctga 300
 cccaaatgta cttcttcttt gccctggggg taactgatag ctgtcttctg gcggccatgg 360
 cctatgactg ctacgtggcc atccggcacc cctccccc ta gccacgagg atgtcccggg 420
 ccatgtgctg agccctgggt ggaatggcat ggctgggtgc ccacgtccac tccctcctgt 480
 atatcctgct catggctcgc ttgtccttct gtgcttccca ccaagtgcc cacttcttct 540
 gtgaccacca gcctctctta aggtctctgt gctctgacac ccaccacatc cagctgctca 600
 tcttcaccga gggcgccgca gtgggtggta ctcccttctt gctcattctc gcctcctatg 660
 gggccatcgc agctgccgtg ctccagctgc cctcagcctc tgggaggtc cgggctgtgt 720
 ccacctgtgg ctcccactg gctgtggtga gcctcttcta tgggacagtc attgcagtct 780
 acttccaggc cacatcccga cgcgaggcag agtggggccg tgtggccact gtcattgtaca 840
 ctgtagtac ccccatgctg aaccccatca tctacagcct ctggaatcgc gatgtacagg 900

gggcactccg agcccttctc attgggcgaa ggatctcagc tagtgactcc tgagggcagg 960
 accccactga ggacagactg catcaccac actggcaact 1000

<210> 58
 <211> 316
 <212> PRT
 <213> Homo sapiens

<400> 58
 Met Glu Ala Ala Asn Glu Ser Ser Glu Gly Ile Ser Phe Val Leu Leu
 1 5 10 15
 Gly Leu Thr Thr Ser Pro Gly Gln Gln Arg Pro Leu Phe Val Leu Phe
 20 25 30
 Leu Leu Leu Tyr Val Ala Ser Leu Leu Gly Asn Gly Leu Ile Val Ala
 35 40 45
 Ala Ile Gln Ala Ser Pro Ala Leu His Ala Pro Met Tyr Phe Leu Leu
 50 55 60
 Ala His Leu Ser Phe Ala Asp Leu Cys Phe Ala Ser Val Thr Val Pro
 65 70 75 80
 Lys Met Leu Ala Asn Leu Leu Ala His Asp His Ser Ile Ser Leu Ala
 85 90 95
 Gly Cys Leu Thr Gln Met Tyr Phe Phe Phe Ala Leu Gly Val Thr Asp
 100 105 110
 Ser Cys Leu Leu Ala Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Arg
 115 120 125
 His Pro Leu Pro Tyr Ala Thr Arg Met Ser Arg Ala Met Cys Ala Ala
 130 135 140
 Leu Val Gly Met Ala Trp Leu Val Ser His Val His Ser Leu Leu Tyr
 145 150 155 160
 Ile Leu Leu Met Ala Arg Leu Ser Phe Cys Ala Ser His Gln Val Pro
 165 170 175
 His Phe Phe Cys Asp His Gln Pro Leu Leu Arg Leu Ser Cys Ser Asp
 180 185 190
 Thr His His Ile Gln Leu Leu Ile Phe Thr Glu Gly Ala Ala Val Val
 195 200 205
 Val Thr Pro Phe Leu Leu Ile Leu Ala Ser Tyr Gly Ala Ile Ala Ala
 210 215 220
 Ala Val Leu Gln Leu Pro Ser Ala Ser Gly Arg Leu Arg Ala Val Ser
 225 230 235 240
 Thr Cys Gly Ser His Leu Ala Val Val Ser Leu Phe Tyr Gly Thr Val
 245 250 255

Ile Ala Val Tyr Phe Gln Ala Thr Ser Arg Arg Glu Ala Glu Trp Gly
260 265 270

Arg Val Ala Thr Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro
275 280 285

Ile Ile Tyr Ser Leu Trp Asn Arg Asp Val Gln Gly Ala Leu Arg Ala
290 295 300

Leu Leu Ile Gly Arg Arg Ile Ser Ala Ser Asp Ser
305 310 315

<210> 59
<211> 991
<212> DNA
<213> Homo sapiens

<400> 59
ccatggaggc tgccaatgag tcttcagagg gaatctcatt cgttttattg ggactgacaa 60
caagtctctg acagcagcgg cctctctttg tgctgttctt gctcttgat gtggccagcc 120
tcttgggtaa tggactcatt gtggctgcca tccaggccag tccagccctt catgcaccca 180
tgtacttcct gctggcccac ctgtcctttg ctgacctctg ctgcgcctcc gtcactgtgc 240
ccaagatgtt ggccaacttg ttggcccatg accactccat ctgcgtggct ggctgcctga 300
cccaaagtga cttcttcttt gccctggggg taactgatag ctgtcttctg gcggccatgg 360
cctatgactg ctacgtggcc atccggcacc cctccccta tgccacgagg atgtcccggg 420
ccatgtgcgc agccctgggt ggaatggcat ggctggtgtc ccacgtccac tccctctgt 480
atatactgct catggctcgc ttgtccttct gtgcttccca ccaagtgcc cacttcttct 540
gtgaccacca gctctctta aggtctctgt gctctgacac ccaccacatc cagctgctca 600
tcttcaccga gggcgcgca gtggtggtca ctcccttctt gctcatcttc gcctcctatg 660
gggcatcgc agctgccgtg ctccagctgc cctcagctc tgggaggctc cgggctgtgt 720
ccacctgtgg ctcccacctg gctgtggtga gcctcttcta tgggacagtc attgcagtct 780
acttccaggc cacatccga cgcgaggcag agtggggccg tgtggccact gtcagtaca 840
ctgtagtcac ccccatgctg aaccccatca tctacagcct ctggaatcgc gatgtacagg 900
gggcactccg agccttctc attgggcgaa ggatctcagc tagtgactcc tgagggcagg 960
acccactga ggacagactg catcacccac a 991

<210> 60
<211> 316
<212> PRT
<213> Homo sapiens

<400> 60
Met Glu Ala Ala Asn Glu Ser Ser Glu Gly Ile Ser Phe Val Leu Leu
1 5 10 15

Gly Leu Thr Thr Ser Pro Gly Gln Gln Arg Pro Leu Phe Val Leu Phe
20 25 30

Leu Leu Leu Tyr Val Ala Ser Leu Leu Gly Asn Gly Leu Ile Val Ala
35 40 45

Ala Ile Gln Ala Ser Pro Ala Leu His Ala Pro Met Tyr Phe Leu Leu
50 55 60

Ala	His	Leu	Ser	Phe	Ala	Asp	Leu	Cys	Phe	Ala	Ser	Val	Thr	Val	Pro
65					70					75					80
Lys	Met	Leu	Ala	Asn	Leu	Leu	Ala	His	Asp	His	Ser	Ile	Ser	Leu	Ala
				85					90					95	
Gly	Cys	Leu	Thr	Gln	Met	Tyr	Phe	Phe	Phe	Ala	Leu	Gly	Val	Thr	Asp
			100					105					110		
Ser	Cys	Leu	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Cys	Tyr	Val	Ala	Ile	Arg
		115					120					125			
His	Pro	Leu	Pro	Tyr	Ala	Thr	Arg	Met	Ser	Arg	Ala	Met	Cys	Ala	Ala
		130					135				140				
Leu	Val	Gly	Met	Ala	Trp	Leu	Val	Ser	His	Val	His	Ser	Leu	Leu	Tyr
145					150					155					160
Ile	Leu	Leu	Met	Ala	Arg	Leu	Ser	Phe	Cys	Ala	Ser	His	Gln	Val	Pro
				165					170					175	
His	Phe	Phe	Cys	Asp	His	Gln	Pro	Leu	Leu	Arg	Leu	Ser	Cys	Ser	Asp
			180					185					190		
Thr	His	His	Ile	Gln	Leu	Leu	Ile	Phe	Thr	Glu	Gly	Ala	Ala	Val	Val
			195				200					205			
Val	Thr	Pro	Phe	Leu	Leu	Ile	Leu	Ala	Ser	Tyr	Gly	Ala	Ile	Ala	Ala
		210				215					220				
Ala	Val	Leu	Gln	Leu	Pro	Ser	Ala	Ser	Gly	Arg	Leu	Arg	Ala	Val	Ser
225					230					235					240
Thr	Cys	Gly	Ser	His	Leu	Ala	Val	Val	Ser	Leu	Phe	Tyr	Gly	Thr	Val
				245					250					255	
Ile	Ala	Val	Tyr	Phe	Gln	Ala	Thr	Ser	Arg	Arg	Glu	Ala	Glu	Trp	Gly
			260					265					270		
Arg	Val	Ala	Thr	Val	Met	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro
		275					280					285			
Ile	Ile	Tyr	Ser	Leu	Trp	Asn	Arg	Asp	Val	Gln	Gly	Ala	Leu	Arg	Ala
		290				295					300				
Leu	Leu	Ile	Gly	Arg	Arg	Ile	Ser	Ala	Ser	Asp	Ser				
305					310					315					

<210> 61
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 61
 Phe Ala Asp Leu Cys Phe Ala Ser Val Thr Val Pro Lys Met Leu Ala
 1 5 10 15

Asn Leu Leu Ala His Asp His Ser Ile Ser Leu Ala Gly Cys Leu Thr
 20 25 30
 Gln Met Tyr Phe Phe Phe Ala Leu Gly Val Thr Asp Ser Cys Leu Leu
 35 40 45
 Ala Ala Met Ala Tyr Asp Cys Tyr Val Ala Ile Arg His Pro Leu Pro
 50 55 60
 Tyr Ala Thr Arg Met Ser Arg Ala Met Cys Ala Ala Leu Val Gly Met
 65 70 75 80
 Ala Trp Leu Val Ser His Val His Ser Leu Leu Tyr Ile Leu Leu Met
 85 90 95
 Ala Arg Leu Ser Phe Cys Ala Ser His Gln Val Pro His Phe Phe Cys
 100 105 110
 Asp His Gln Pro Leu Leu Arg Leu Ser Cys Ser Asp Thr His His Ile
 115 120 125
 Gln Leu Leu Ile Phe Thr Glu Gly Ala Ala Val Val Val Thr Pro Phe
 130 135 140
 Leu Leu Ile Leu Ala Ser Tyr Gly Ala Ile Ala Ala Ala Val Leu Gln
 145 150 155 160
 Leu Pro Ser Ala Ser Gly Arg Leu Arg Ala Val Ser Thr Cys Gly Ser
 165 170 175
 His Leu Ala Val Val Ser Leu Phe Tyr Gly Thr Val Ile Ala Val Tyr
 180 185 190
 Phe Gln Ala Thr Ser Arg Arg Glu Ala Glu Trp Gly Arg Val Ala Thr
 195 200 205
 Val Met Tyr Thr Val Val Thr Pro
 210 215

<210> 62
 <211> 299
 <212> PRT
 <213> Rattus norvegicus

<400> 62
 Met Ser Ser Thr Asn Gln Ser Ser Val Thr Glu Phe Leu Leu Leu Gly
 1 5 10 15
 Leu Ser Arg Gln Pro Gln Gln Gln Gln Leu Leu Phe Leu Leu Phe Leu
 20 25 30
 Ile Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ala
 35 40 45
 Ile Gly Thr Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser

50	55	60
Asn Leu Ser Phe Val Asp Val Cys Phe Ser Ser Thr Thr Val Pro Lys		
65	70	75 80
Val Leu Ala Asn His Ile Leu Gly Ser Gln Ala Ile Ser Phe Ser Gly		
	85	90 95
Cys Leu Thr Gln Leu Tyr Phe Leu Ala Val Phe Gly Asn Met Asp Asn		
	100	105 110
Phe Leu Leu Ala Val Met Ser Tyr Asp Arg Phe Val Ala Ile Cys His		
	115	120 125
Pro Leu His Tyr Thr Thr Lys Met Thr Arg Gln Leu Cys Val Leu Leu		
	130	135 140
Val Val Gly Ser Trp Val Val Ala Asn Met Asn Cys Leu Leu His Ile		
145	150	155 160
Leu Leu Met Ala Arg Leu Ser Phe Cys Ala Asp Asn Met Ile Pro His		
	165	170 175
Phe Phe Cys Asp Gly Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Thr		
	180	185 190
His Leu Asn Glu Leu Met Ile Leu Thr Glu Gly Ala Val Val Met Val		
	195	200 205
Thr Pro Phe Val Cys Ile Leu Ile Ser Tyr Ile His Ile Thr Cys Ala		
	210	215 220
Val Leu Arg Val Ser Ser Pro Arg Gly Gly Trp Lys Ser Phe Ser Thr		
225	230	235 240
Cys Gly Ser His Leu Ala Val Val Cys Leu Phe Tyr Gly Thr Val Ile		
	245	250 255
Ala Val Tyr Phe Asn Pro Ser Ser Ser His Leu Ala Gly Arg Asp Met		
	260	265 270
Ala Ala Ala Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Pro Phe		
	275	280 285
Ile Tyr Ser Leu Arg Asn Ser Asp Met Lys Ala		
	290	295

<210> 63
 <211> 313
 <212> PRT
 <213> Rattus norvegicus

<400> 63
 Met Ser Ser Thr Asn Gln Ser Ser Val Thr Glu Phe Leu Leu Leu Gly
 1 5 10 15

Leu Ser Arg Gln Pro Gln Gln Gln Gln Leu Leu Phe Leu Leu Phe Leu
 20 25 30
 Ile Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ala
 35 40 45
 Ile Gly Thr Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Val Asp Val Cys Phe Ser Ser Thr Thr Val Pro Lys
 65 70 75 80
 Val Leu Ala Asn His Ile Leu Gly Ser Gln Ala Ile Ser Phe Ser Gly
 85 90 95
 Cys Leu Thr Gln Leu Tyr Phe Leu Ala Val Phe Gly Asn Met Asp Asn
 100 105 110
 Phe Leu Leu Ala Val Met Ser Tyr Asp Arg Phe Val Ala Ile Cys His
 115 120 125
 Pro Leu His Tyr Thr Thr Lys Met Thr Arg Gln Leu Cys Val Leu Leu
 130 135 140
 Val Val Gly Ser Trp Val Val Ala Asn Met Asn Cys Leu Leu His Ile
 145 150 155 160
 Leu Leu Met Ala Arg Lys Ser Phe Cys Ala Asp Asn Met Ile Pro His
 165 170 175
 Phe Phe Cys Asp Gly Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Thr
 180 185 190
 His Leu Asn Glu Leu Met Ile Leu Thr Glu Gly Ala Val Val Met Val
 195 200 205
 Thr Pro Phe Val Cys Ile Leu Ile Ser Tyr Ile His Ile Thr Cys Ala
 210 215 220
 Val Leu Arg Val Ser Ser Pro Arg Gly Gly Trp Lys Ser Phe Ser Thr
 225 230 235 240
 Cys Gly Ser His Leu Ala Val Val Cys Leu Phe Tyr Gly Thr Val Ile
 245 250 255
 Ala Val Tyr Phe Asn Pro Ser Ser Ser His Leu Ala Gly Arg Asp Met
 260 265 270
 Ala Ala Ala Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Ser Asp Met Lys Ala Ala Leu Arg Lys Val
 290 295 300
 Leu Ala Met Arg Phe Pro Ser Lys Gln
 305 310

<210> 64
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 64

Met	Ser	Gly	Thr	Asn	Gln	Ser	Ser	Val	Ser	Glu	Phe	Leu	Leu	Leu	Gly
1				5					10					15	
Leu	Ser	Arg	Gln	Pro	Gln	Gln	Gln	His	Leu	Leu	Phe	Val	Phe	Phe	Leu
			20					25					30		
Ser	Met	Tyr	Leu	Ala	Thr	Val	Leu	Gly	Asn	Leu	Leu	Ile	Ile	Leu	Ser
		35					40					45			
Val	Ser	Ile	Asp	Ser	Cys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser
	50					55					60				
Asn	Leu	Ser	Phe	Val	Asp	Ile	Cys	Phe	Ser	Phe	Thr	Thr	Val	Pro	Lys
65					70					75					80
Met	Leu	Ala	Asn	His	Ile	Leu	Glu	Thr	Gln	Thr	Ile	Ser	Phe	Cys	Gly
				85					90					95	
Cys	Leu	Thr	Gln	Met	Tyr	Phe	Val	Phe	Met	Phe	Val	Asp	Met	Asp	Asn
			100					105					110		
Phe	Leu	Leu	Ala	Val	Met	Ala	Tyr	Asp	His	Phe	Val	Ala	Val	Cys	His
		115					120					125			
Pro	Leu	His	Tyr	Thr	Ala	Lys	Met	Thr	His	Gln	Leu	Cys	Ala	Leu	Leu
		130				135					140				
Val	Ala	Gly	Leu	Trp	Val	Val	Ala	Asn	Leu	Asn	Val	Leu	Leu	His	Thr
145					150					155					160
Leu	Leu	Met	Ala	Pro	Leu	Ser	Phe	Cys	Ala	Asp	Asn	Ala	Ile	Thr	His
				165					170					175	
Phe	Phe	Cys	Asp	Val	Thr	Pro	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr
			180					185					190		
His	Leu	Asn	Glu	Val	Ile	Ile	Leu	Ser	Glu	Gly	Ala	Leu	Val	Met	Ile
		195					200					205			
Thr	Pro	Phe	Leu	Cys	Ile	Leu	Ala	Ser	Tyr	Met	His	Ile	Thr	Cys	Thr
		210				215					220				
Val	Leu	Lys	Val	Pro	Ser	Thr	Lys	Gly	Arg	Trp	Lys	Ala	Phe	Ser	Thr
225					230					235					240
Cys	Gly	Ser	His	Leu	Ala	Val	Val	Leu	Leu	Phe	Tyr	Ser	Thr	Ile	Ile
				245					250					255	
Ala	Val	Tyr	Phe	Asn	Pro	Leu	Ser	Ser	His	Ser	Ala	Glu	Lys	Asp	Thr
			260					265					270		

Met Ala Thr Val Leu Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285

Ile Tyr Ser Leu Arg Asn Arg Tyr Leu Lys Gly Ala Leu Lys Lys Val
 290 295 300

Val Gly Arg Val Val Phe Ser Val
 305 310

<210> 65
 <211> 314
 <212> PRT
 <213> Pan troglodytes

<220>
 <221> VARIANT
 <222> (1)..(314)
 <223> Wherein Xaa is any amino acid as defined in the
 specification

<400> 65
 Met Met Gly Gln Asn Gln Thr Ser Ile Ser Asp Phe Leu Leu Leu Gly
 1 5 10 15

Leu Pro Ile Gln Pro Glu Gln Gln Asn Leu Cys Tyr Ala Leu Phe Leu
 20 25 30

Ala Met Tyr Leu Thr Thr Leu Leu Gly Asn Leu Leu Ile Ile Val Leu
 35 40 45

Ile Arg Leu Asp Ser His Leu His Thr Pro Met Tyr Leu Phe Leu Ser
 50 55 60

Asn Leu Ser Phe Ser Asp Leu Cys Phe Ser Ser Val Thr Ile Pro Lys
 65 70 75 80

Leu Leu Gln Asn Met Gln Asn Gln Asp Pro Ser Ile Pro Tyr Ala Asp
 85 90 95

Cys Leu Thr Gln Met Tyr Phe Phe Leu Leu Phe Gly Asp Leu Glu Ser
 100 105 110

Phe Leu Leu Val Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Phe
 115 120 125

Pro Leu His Tyr Thr Ala Ile Met Ser Pro Met Leu Cys Leu Ser Leu
 130 135 140

Val Ala Leu Ser Trp Val Leu Thr Thr Phe His Ala Met Leu His Thr
 145 150 155 160

Leu Leu Met Ala Arg Leu Cys Phe Cys Ala Asp Asn Val Ile Pro His
 165 170 175

Phe Phe Cys Asp Met Ser Ala Leu Leu Lys Leu Ala Cys Ser Asp Thr

180	185	190
Arg Val Asn Glu Trp Val Ile Phe Ile Met Gly Gly Leu Ile Val Val		
195	200	205
Ile Pro Phe Leu Leu Ile Leu Gly Ser Tyr Ala Arg Ile Val Ser Ser		
210	215	220
Ile Leu Lys Val Pro Ser Ser Lys Gly Ile Cys Lys Ala Phe Ser Thr		
225	230	235
Cys Gly Ser His Leu Ser Val Val Ser Leu Phe Tyr Gly Thr Ile Ile		
245	250	255
Gly Leu Tyr Leu Cys Pro Ser Ala Asn Ser Ser Thr Leu Lys Glu Thr		
260	265	270
Val Met Ala Met Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe		
275	280	285
Ile Tyr Ser Leu Arg Asn Arg Asp Met Lys Gly Ala Leu Glu Arg Val		
290	295	300
Ile Xaa Lys Arg Lys Asn Pro Phe Leu Leu		
305	310	

<210> 66
 <211> 1022
 <212> DNA
 <213> Homo sapiens

<400> 66
 tctctgtttc ctcagggatt gagaaagggg acaatgtggc agaagaatca gacctctctg 60
 gcagacttca tccttgaggg gctcttcgat gactccctta cccacctttt ccttttctcc 120
 ttgaccatgg tggcttctct tattgcggtg agtggcaaca cctcaccat tctcctcatc 180
 tgcattgatc cccaacttca tacaccaatg tatttcctgc tcagccagct ctccctcatg 240
 gatctgatgc atgtctccac aatcatcctg aagatggcta ccaactacct atctggcaag 300
 aaatctatct cctttgtggg ctgtgcaacc cagcacttcc tctatttgtg tctaggtgg 360
 gctgaatgtt ttctcttagc tgtcatgtcc tatgaccgct atgttgccat ctgtcatcca 420
 ctgcgctatg ctgtgctcat gaacaagaag gtgggactga tgatggctgt catgtcatgg 480
 ttgggggcat ccgtgaactc cctaattcac atggcgatct tgatgcactt ccctttctgt 540
 gggcctcgga aagtctacca cttctactgt gagttcccag ctgttggtgaa gttggatgt 600
 ggcgacatca ctgtgtatga gaccacagtg tacatcagca gcattctcct cctcctccc 660
 atcttcctga tttctacatc ctatgtcttc atccttcaaa gtgtcattca gatgcgtca 720
 tctgggagca agagaaatgc ctttgccact tgtggctccc acctcacggg ggtttctctt 780
 tggtttggtg cctgcatctt ctcctacatg agaccaggt cccagtgcac tctattgcag 840
 aacaaagtgt gttctgtgtt ctacagcatc attacgcca cattgaattc tctgatttat 900
 actctccgga ataaagatgt agctaaggct ctgagaagag tgctgaggag agatgttatc 960
 acccagtgc tcaacgact gcaattgtgg ttgccccgag tgtagagtgg aataggataa 1020
 gc 1022

<210> 67
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 67

Met	Trp	Gln	Lys	Asn	Gln	Thr	Ser	Leu	Ala	Asp	Phe	Ile	Leu	Glu	Gly
1				5					10					15	
Leu	Phe	Asp	Asp	Ser	Leu	Thr	His	Leu	Phe	Leu	Phe	Ser	Leu	Thr	Met
			20					25					30		
Val	Val	Phe	Leu	Ile	Ala	Val	Ser	Gly	Asn	Thr	Leu	Thr	Ile	Leu	Leu
		35					40					45			
Ile	Cys	Ile	Asp	Pro	Gln	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Ser
	50					55					60				
Gln	Leu	Ser	Leu	Met	Asp	Leu	Met	His	Val	Ser	Thr	Ile	Ile	Leu	Lys
65					70					75					80
Met	Ala	Thr	Asn	Tyr	Leu	Ser	Gly	Lys	Lys	Ser	Ile	Ser	Phe	Val	Gly
				85					90					95	
Cys	Ala	Thr	Gln	His	Phe	Leu	Tyr	Leu	Cys	Leu	Gly	Gly	Ala	Glu	Cys
			100					105					110		
Phe	Leu	Leu	Ala	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His
		115					120					125			
Pro	Leu	Arg	Tyr	Ala	Val	Leu	Met	Asn	Lys	Lys	Val	Gly	Leu	Met	Met
	130					135					140				
Ala	Val	Met	Ser	Trp	Leu	Gly	Ala	Ser	Val	Asn	Ser	Leu	Ile	His	Met
145					150					155					160
Ala	Ile	Leu	Met	His	Phe	Pro	Phe	Cys	Gly	Pro	Arg	Lys	Val	Tyr	His
				165					170					175	
Phe	Tyr	Cys	Glu	Phe	Pro	Ala	Val	Val	Lys	Leu	Val	Cys	Gly	Asp	Ile
			180					185					190		
Thr	Val	Tyr	Glu	Thr	Thr	Val	Tyr	Ile	Ser	Ser	Ile	Leu	Leu	Leu	Leu
		195					200					205			
Pro	Ile	Phe	Leu	Ile	Ser	Thr	Ser	Tyr	Val	Phe	Ile	Leu	Gln	Ser	Val
	210					215					220				
Ile	Gln	Met	Arg	Ser	Ser	Gly	Ser	Lys	Arg	Asn	Ala	Phe	Ala	Thr	Cys
225					230					235					240
Gly	Ser	His	Leu	Thr	Val	Val	Ser	Leu	Trp	Phe	Gly	Ala	Cys	Ile	Phe
			245						250					255	
Ser	Tyr	Met	Arg	Pro	Arg	Ser	Gln	Cys	Thr	Leu	Leu	Gln	Asn	Lys	Val
			260					265					270		
Gly	Ser	Val	Phe	Tyr	Ser	Ile	Ile	Thr	Pro	Thr	Leu	Asn	Ser	Leu	Ile
		275					280					285			
Tyr	Thr	Leu	Arg	Asn	Lys	Asp	Val	Ala	Lys	Ala	Leu	Arg	Arg	Val	Leu

290	295	300
Arg Arg Asp Val Ile Thr Gln Cys Ile Gln Arg Leu Gln Leu Trp Leu		
305	310	315 320
Pro Arg Val		
<210> 68		
<211> 311		
<212> PRT		
<213> Homo sapiens		
<400> 68		
Met Glu Glu Tyr Asn Thr Ser Ser Thr Asp Phe Thr Phe Met Gly Leu		
1	5	10 15
Phe Asn Arg Lys Glu Thr Ser Gly Leu Ile Phe Ala Ile Ile Ser Ile		
	20	25 30
Ile Phe Phe Thr Ala Leu Met Ala Asn Gly Val Met Ile Phe Leu Ile		
	35	40 45
Gln Thr Asp Leu Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser His		
	50	55 60
Leu Ser Leu Ile Asp Met Met Tyr Ile Ser Thr Ile Val Pro Lys Met		
	65	70 75 80
Leu Val Asn Tyr Leu Leu Asp Gln Arg Thr Ile Ser Phe Val Gly Cys		
	85	90 95
Thr Ala Gln His Phe Leu Tyr Leu Thr Leu Val Gly Ala Glu Phe Phe		
	100	105 110
Leu Leu Gly Leu Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro		
	115	120 125
Leu Arg Tyr Pro Val Leu Met Ser Arg Arg Val Cys Trp Met Ile Ile		
	130	135 140
Ala Gly Ser Trp Phe Gly Gly Ser Leu Asp Gly Phe Leu Leu Thr Pro		
	145	150 155 160
Ile Thr Met Ser Phe Pro Phe Cys Asn Ser Arg Glu Ile Asn His Phe		
	165	170 175
Phe Cys Glu Ala Pro Ala Val Leu Lys Leu Ala Cys Ala Asp Thr Ala		
	180	185 190
Leu Tyr Glu Thr Val Met Tyr Val Cys Cys Val Leu Met Leu Leu Ile		
	195	200 205
Pro Phe Ser Val Val Leu Ala Ser Tyr Ala Arg Ile Leu Thr Thr Val		
	210	215 220

Gln Cys Met Ser Ser Val Glu Gly Arg Lys Lys Ala Phe Ala Thr Cys
225 230 235 240

Ser Ser His Met Thr Val Val Ser Leu Phe Tyr Gly Ala Ala Met Tyr
245 250 255

Thr Tyr Met Leu Pro His Ser Tyr His Lys Pro Ala Gln Asp Lys Val
260 265 270

Leu Ser Val Phe Tyr Thr Ile Leu Thr Pro Met Leu Asn Pro Leu Ile
275 280 285

Tyr Ser Leu Arg Asn Lys Asp Val Thr Gly Ala Leu Lys Arg Ala Leu
290 295 300

Gly Arg Phe Lys Gly Pro Gln
305 310

<210> 69

<211> 315

<212> PRT

<213> Homo sapiens

<400> 69

Met Gly Arg Trp Val Asn Gln Ser Tyr Thr Asp Gly Phe Phe Leu Leu
1 5 10 15

Gly Ile Phe Ser His Ser Gln Thr Asp Leu Val Leu Phe Ser Ala Val
20 25 30

Met Val Val Phe Thr Val Ala Leu Cys Gly Asn Val Leu Leu Ile Phe
35 40 45

Leu Ile Tyr Leu Asp Ala Gly Leu His Thr Pro Met Tyr Phe Phe Leu
50 55 60

Ser Gln Leu Ser Leu Met Asp Leu Met Leu Val Cys Asn Ile Val Pro
65 70 75 80

Lys Met Ala Ala Asn Phe Leu Ser Gly Arg Lys Ser Ile Ser Phe Val
85 90 95

Gly Cys Gly Ile Gln Ile Gly Phe Phe Val Ser Leu Val Gly Ser Glu
100 105 110

Gly Leu Leu Leu Gly Leu Met Ala Tyr Asp His Tyr Val Ala Val Ser
115 120 125

His Pro Leu His Tyr Pro Ile Leu Met Asn Gln Arg Val Cys Leu Gln
130 135 140

Ile Thr Gly Ser Ser Trp Ala Phe Gly Ile Ile Asp Gly Val Ile Gln
145 150 155 160

Met Val Ala Ala Met Gly Leu Pro Tyr Cys Gly Ser Arg Ser Val Asp
165 170 175

His Phe Phe Cys Glu Val Gln Ala Leu Leu Lys Leu Ala Cys Ala Asp
 180 185 190
 Thr Ser Leu Phe Asp Thr Leu Leu Phe Ala Cys Cys Val Phe Met Leu
 195 200 205
 Leu Leu Pro Phe Ser Ile Ile Met Ala Ser Tyr Ala Cys Ile Leu Gly
 210 215 220
 Ala Val Leu Arg Ile Arg Ser Ala Gln Ala Trp Lys Lys Ala Leu Ala
 225 230 235 240
 Thr Cys Ser Ser His Leu Thr Ala Val Thr Leu Phe Tyr Gly Ala Ala
 245 250 255
 Met Phe Met Tyr Leu Arg Pro Arg Arg Tyr Arg Ala Pro Ser His Asp
 260 265 270
 Lys Val Ala Ser Ile Phe Tyr Thr Val Leu Thr Pro Met Leu Asn Pro
 275 280 285
 Leu Ile Tyr Ser Leu Arg Asn Gly Glu Val Met Gly Ala Leu Arg Lys
 290 295 300
 Gly Leu Asp Arg Cys Arg Ile Gly Ser Gln His
 305 310 315

<210> 70
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 70
 Met Asn Trp Glu Asn Glu Ser Ser Pro Lys Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Phe Ser Asp Arg Ala Trp Leu Gln Met Pro Leu Phe Val Val Leu Leu
 20 25 30
 Ile Ser Tyr Thr Ile Thr Ile Phe Gly Asn Val Ser Ile Met Met Val
 35 40 45
 Cys Ile Leu Asp Pro Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60
 Asn Leu Ser Ile Leu Asp Leu Cys Tyr Thr Thr Thr Thr Val Pro His
 65 70 75 80
 Met Leu Val Asn Ile Gly Cys Asn Lys Lys Thr Ile Ser Tyr Ala Gly
 85 90 95
 Cys Val Ala His Leu Ile Ile Phe Leu Ala Leu Gly Ala Thr Glu Cys
 100 105 110
 Leu Leu Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Val Cys Arg

115	120	125
Pro Leu His Tyr Val Val 130	Ile Met Asn Tyr Trp 135	Phe Cys Leu Arg Met 140
Ala Ala Phe Ser Trp 145	Leu Ile Gly Phe Gly 150	Asn Ser Val Leu Gln Ser 155 160
Ser Leu Thr Leu 165	Asn Met Pro Arg Cys 170	Gly His Gln Glu Val Asp His 175
Phe Phe Cys Glu Val 180	Pro Ala Leu Leu Lys 185	Leu Ser Cys Ala Asp Thr 190
Lys Pro Ile Glu Ala Glu 195	Leu Phe Phe Phe Ser 200	Val Leu Ile Leu Leu 205
Ile Pro Val Thr Leu 210	Ile Leu Ile Ser Tyr 215	Gly Phe Ile Ala Gln Ala 220
Val Leu Lys Ile Arg 225	Ser Ala Glu Gly Arg 230	Gln Lys Ala Phe Gly Thr 235 240
Cys Gly Ser His Met 245	Ile Val Val Ser 250	Leu Phe Tyr Gly Thr Ala Ile 255
Tyr Met Tyr Leu Gln 260	Pro Pro Ser Ser 265	Thr Ser Lys Asp Trp Gly Lys 270
Met Val Ser Leu Phe 275	Tyr Gly Ile Ile Thr 280	Ser Met Leu Asn Ser Leu 285
Ile Tyr Ser Leu Arg 290	Asn Lys Asp Met Lys 295	Glu Ala Phe Lys Arg Leu 300
Met Pro Arg Ile Phe 305	Phe Cys Lys Lys 310	

<210> 71
 <211> 315
 <212> PRT
 <213> Mus musculus

<400> 71
 Met Glu Val Cys Asn Ser Thr Leu Arg Ser Gly Phe Ile Leu Met Gly
 1 5 10 15
 Ile Leu Asp Asp Asn Asp Phe Pro Glu Leu Leu Cys Ala Thr Ile Thr
 20 25 30
 Ala Leu Tyr Leu Leu Ala Leu Thr Ser Asn Gly Leu Leu Leu Val
 35 40 45
 Ile Thr Met Asp Thr Arg Leu His Val Pro Met Tyr Leu Leu Leu Trp
 50 55 60

Gln Leu Ser Leu Met Asp Leu Leu Leu Thr Ser Val Ile Thr Pro Lys
 65 70 75 80
 Ala Ile Leu Asp Tyr Leu Leu Lys Asp Asn Thr Ile Ser Phe Gly Gly
 85 90 95
 Cys Ala Leu Gln Met Phe Leu Ala Leu Thr Leu Gly Thr Ala Glu Asp
 100 105 110
 Leu Leu Leu Ser Phe Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu Asn Tyr Thr Ile Leu Met Ser Gln Lys Val Cys Cys Leu Met
 130 135 140
 Ile Ala Thr Ser Trp Ser Leu Ala Ser Leu Ser Ala Leu Gly Tyr Ser
 145 150 155 160
 Met Tyr Thr Met Gln Tyr Pro Phe Cys Lys Ser Arg Gln Ile Arg His
 165 170 175
 Leu Phe Cys Glu Ile Pro Pro Leu Leu Lys Leu Ala Cys Ala Asp Thr
 180 185 190
 Ser Thr Tyr Glu Leu Met Val Tyr Leu Met Gly Val Thr Leu Leu Phe
 195 200 205
 Pro Ala Leu Ala Ala Ile Leu Ala Ser Tyr Ser Leu Ile Leu Phe Thr
 210 215 220
 Val Leu His Met Pro Ser Asn Glu Gly Arg Arg Lys Ala Leu Val Thr
 225 230 235 240
 Cys Ser Ser His Leu Thr Val Val Gly Met Trp Tyr Gly Gly Ala Ile
 245 250 255
 Val Met Tyr Val Leu Pro Ser Ser Phe His Ser Pro Lys Gln Asp Asn
 260 265 270
 Ile Ser Ser Val Phe Tyr Thr Ile Phe Thr Pro Ala Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Val Thr Gly Ala Leu Arg Arg Val
 290 295 300
 Leu Gly Lys Arg Leu Ser Val Gln Ser Thr Phe
 305 310 315

<210> 72

<211> 317

<212> PRT

<213> Canis familiaris

<400> 72

Met Gly Thr Gly Asn Gln Thr Trp Val Arg Glu Phe Val Leu Leu Gly
 1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Glu Val Ser Leu Phe Val Leu Phe Leu
 20 25 30
 Ile Thr Tyr Met Val Thr Val Leu Gly Asn Phe Leu Ile Ile Leu Leu
 35 40 45
 Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60
 Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Ile Ile Pro Gln
 65 70 75 80
 Met Leu Ala His Leu Leu Ala Ala His Lys Ala Ile Pro Phe Val Ser
 85 90 95
 Cys Ala Ala Gln Leu Phe Phe Ser Leu Gly Leu Gly Gly Ile Glu Phe
 100 105 110
 Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp
 115 120 125
 Pro Leu Arg Tyr Ser Val Ile Met His Gly Gly Leu Cys Thr Arg Leu
 130 135 140
 Ala Ile Thr Ser Trp Val Ser Gly Ser Met Asn Ser Leu Met Gln Thr
 145 150 155 160
 Val Ile Thr Phe Gln Leu Pro Met Cys Thr Asn Lys Tyr Ile Asp His
 165 170 175
 Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr
 180 185 190
 Ser Ser Asn Glu Ile Ala Ile Met Val Ser Ser Ile Val Leu Leu Met
 195 200 205
 Thr Pro Phe Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr
 210 215 220
 Ile Leu Lys Ile Gln Ser Thr Glu Gly Arg Lys Lys Ala Phe His Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Val Leu Cys Tyr Gly Met Ala Ile
 245 250 255
 Phe Thr Tyr Ile Gln Pro Arg Ser Ser Pro Ser Val Leu Gln Glu Lys
 260 265 270
 Leu Ile Ser Leu Phe Tyr Ser Val Leu Thr Pro Met Leu Asn Pro Met
 275 280 285
 Ile Tyr Ser Val Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu
 290 295 300
 Leu Gly Gln Leu Thr Gly Ile Thr Ser Lys Leu Ala Thr
 305 310 315

<210> 73
 <211> 932
 <212> DNA
 <213> Homo sapiens

<400> 73
 tgacagaatt cattcttctt ggtctgactc agtctcaaga tgctcaactt ctggtctttg 60
 tgctagtctt aattttctac cttatcatcc tccctggaaa tttcctcatc attttcacca 120
 taaagtcaga ccctgggctc acagccccc tctatttctt tctgggcaac ttggccttac 180
 tggatgcac ctactccttc attgtggttc ccaggatgtt ggtggacttc ctctctgaga 240
 agaaggtaat ctccatagaa agctgcatca ctacagctctt tttcttgcac tttcttggag 300
 cgggagagat gttcctcctc gttgtgatgg cctttgaccg ctacatcgcc atctgccggc 360
 ctttacacta ttcaaccatc atgaacccta gagcctgcta tgcattatcg ttggttctgt 420
 ggcttggggg ctttatccat tccattgtac aagtagccct taccctgcac ttgcctttct 480
 gtggcccaaa ccagctcgat aacttcttct gtgatgttcc acaggtcac aagctggcct 540
 gcaccaatac ctttgtgggt gagcttctga tggctctcaa cagtggcctg ctacagcctc 600
 tgtgtcttct gggccttctg gcctcctatg cagtcctcct ctgtcgtata agggagcact 660
 cctctgaagg aaagagcaag gctatttcca catgcaccac ccatattatc attataattc 720
 tcatgttttg acctgctatt ttcacttaca cttgcccctt ccaggctttc ccagctgaca 780
 aggtagtttc tcttttccat actgtcatct ttcctttgat gaaccctgtt atttatacgc 840
 ttcgcaacca ggaggtgaaa gcttccatga ggaagtgtt aagtcaacat atgttttgct 900
 gaatagaaga aagagaaaag caagaacgga ga 932

<210> 74
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 74
 Thr Glu Phe Ile Leu Leu Gly Leu Thr Gln Ser Gln Asp Ala Gln Leu
 1 5 10 15
 Leu Val Phe Val Leu Val Leu Ile Phe Tyr Leu Ile Ile Leu Pro Gly
 20 25 30
 Asn Phe Leu Ile Ile Phe Thr Ile Lys Ser Asp Pro Gly Leu Thr Ala
 35 40 45
 Pro Leu Tyr Phe Phe Leu Gly Asn Leu Ala Leu Leu Asp Ala Ser Tyr
 50 55 60
 Ser Phe Ile Val Val Pro Arg Met Leu Val Asp Phe Leu Ser Glu Lys
 65 70 75 80
 Lys Val Ile Ser Tyr Arg Ser Cys Ile Thr Gln Leu Phe Phe Leu His
 85 90 95
 Phe Leu Gly Ala Gly Glu Met Phe Leu Leu Val Val Met Ala Phe Asp
 100 105 110
 Arg Tyr Ile Ala Ile Cys Arg Pro Leu His Tyr Ser Thr Ile Met Asn
 115 120 125
 Pro Arg Ala Cys Tyr Ala Leu Ser Leu Val Leu Trp Leu Gly Gly Phe

130	135	140
Ile His Ser Ile Val Gln Val Ala Leu Ile Leu His Leu Pro Phe Cys 145 150 155 160		
Gly Pro Asn Gln Leu Asp Asn Phe Phe Cys Asp Val Pro Gln Val Ile 165 170 175		
Lys Leu Ala Cys Thr Asn Thr Phe Val Val Glu Leu Leu Met Val Ser 180 185 190		
Asn Ser Gly Leu Leu Ser Leu Leu Cys Phe Leu Gly Leu Leu Ala Ser 195 200 205		
Tyr Ala Val Ile Leu Cys Arg Ile Arg Glu His Ser Ser Glu Gly Lys 210 215 220		
Ser Lys Ala Ile Ser Thr Cys Thr Thr His Ile Ile Ile Ile Phe Leu 225 230 235 240		
Met Phe Gly Pro Ala Ile Phe Ile Tyr Thr Cys Pro Phe Gln Ala Phe 245 250 255		
Pro Ala Asp Lys Val Val Ser Leu Phe His Thr Val Ile Phe Pro Leu 260 265 270		
Met Asn Pro Val Ile Tyr Thr Leu Arg Asn Gln Glu Val Lys Ala Ser 275 280 285		
Met Arg Lys Leu Leu Ser Gln His Met Phe Cys 290 295		

<210> 75
 <211> 308
 <212> PRT
 <213> Mus musculus

<400> 75
 Met Gly Ala Leu Asn Gln Thr Arg Val Thr Glu Phe Ile Phe Leu Gly
 1 5 10 15
 Leu Thr Asp Asn Trp Val Leu Glu Ile Leu Phe Phe Val Pro Phe Thr
 20 25 30
 Val Thr Tyr Met Leu Thr Leu Leu Gly Asn Phe Leu Ile Val Val Thr
 35 40 45
 Ile Val Phe Thr Pro Arg Leu His Asn Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Ile Asp Ile Cys His Ser Ser Val Thr Val Pro Lys
 65 70 75 80
 Met Leu Glu Gly Leu Leu Leu Glu Arg Lys Thr Ile Ser Phe Asp Asn
 85 90 95

Cys Ile Ala Gln Leu Phe Phe Leu His Leu Phe Ala Cys Ser Glu Ile
 100 105 110
 Phe Leu Leu Thr Ile Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ile
 115 120 125
 Pro Leu His Tyr Ser Asn Val Met Asn Met Lys Val Cys Val Gln Leu
 130 135 140
 Val Phe Ala Leu Trp Leu Gly Gly Thr Ile His Ser Leu Val Gln Thr
 145 150 155 160
 Phe Leu Thr Ile Arg Leu Pro Tyr Cys Gly Pro Asn Ile Ile Asp Ser
 165 170 175
 Tyr Phe Cys Asp Val Pro Pro Val Ile Lys Leu Ala Cys Thr Asp Thr
 180 185 190
 Tyr Leu Thr Gly Ile Leu Ile Val Ser Asn Ser Gly Thr Ile Ser Leu
 195 200 205
 Val Cys Phe Leu Ala Leu Val Thr Ser Tyr Thr Val Ile Leu Phe Ser
 210 215 220
 Leu Arg Lys Lys Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys
 225 230 235 240
 Ser Ala His Phe Met Val Val Thr Leu Phe Phe Gly Pro Cys Ile Phe
 245 250 255
 Leu Tyr Thr Arg Pro Asp Ser Ser Phe Ser Ile Asp Lys Val Val Ser
 260 265 270
 Val Phe Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu Ile Tyr Thr
 275 280 285
 Leu Arg Asn Glu Glu Val Lys Thr Ala Met Lys His Leu Arg Gln Arg
 290 295 300
 Arg Ile Cys Ser
 305

<210> 76
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Glu Pro Gln Asn Thr Thr Gln Val Ser Met Phe Val Leu Leu Gly
 1 5 10 15
 Phe Ser Gln Thr Gln Glu Leu Gln Lys Phe Leu Phe Leu Leu Phe Leu
 20 25 30
 Leu Val Tyr Val Thr Thr Ile Val Gly Asn Leu Leu Ile Met Val Thr
 35 40 45

Val Thr Phe Asp Cys Arg Leu His Thr Pro Met Tyr Phe Leu Leu Arg
50 55 60
Asn Leu Ala Leu Ile Asp Leu Cys Tyr Ser Thr Val Thr Ser Pro Lys
65 70 75 80
Met Leu Val Asp Phe Leu His Glu Thr Lys Thr Ile Ser Tyr Gln Gly
85 90 95
Cys Met Ala Gln Ile Phe Phe Phe His Leu Leu Gly Gly Gly Thr Val
100 105 110
Phe Phe Leu Ser Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln
115 120 125
Pro Leu Arg Tyr Val Thr Ile Met Asn Thr Gln Leu Cys Val Gly Leu
130 135 140
Val Val Ala Ala Trp Val Gly Gly Phe Val His Ser Ile Val Gln Leu
145 150 155 160
Ala Leu Ile Leu Pro Leu Pro Phe Cys Asp Pro Asn Ile Ile Asp Asn
165 170 175
Phe Tyr Cys Asp Val Pro Gln Val Leu Arg Leu Ala Cys Thr Asp Thr
180 185 190
Ser Leu Leu Glu Phe Leu Met Ile Phe Asn Ser Gly Leu Leu Val Ile
195 200 205
Ile Trp Phe Leu Leu Leu Leu Ile Ser Tyr Thr Val Ile Leu Val Met
210 215 220
Leu Arg Ser His Ser Gly Lys Ala Arg Arg Lys Ala Ala Ser Thr Cys
225 230 235 240
Thr Thr His Ile Ile Val Val Ser Met Ile Phe Ile Pro Cys Ile Tyr
245 250 255
Ile Tyr Thr Trp Pro Phe Thr Pro Phe Leu Met Asp Lys Ala Val Ser
260 265 270
Ile Ser Tyr Thr Val Met Thr Pro Met Leu Asn Pro Met Ile Tyr Thr
275 280 285
Leu Arg Asn Gln Asp Met Lys Ala Ala Met Arg Arg Leu Gly Lys Cys
290 295 300
Leu Val Ile Cys Arg Glu
305 310

<210> 77
<211> 307
<212> PRT
<213> Homo sapiens

<400> 77

Met	Glu	Thr	Gly	Asn	Leu	Thr	Trp	Val	Ser	Asp	Phe	Val	Phe	Leu	Gly
1				5					10					15	
Leu	Ser	Gln	Thr	Arg	Glu	Leu	Gln	Arg	Phe	Leu	Phe	Leu	Met	Phe	Leu
			20					25					30		
Phe	Val	Tyr	Ile	Thr	Thr	Val	Met	Gly	Asn	Ile	Leu	Ile	Ile	Ile	Thr
		35					40					45			
Val	Thr	Ser	Asp	Ser	Gln	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Arg
	50					55					60				
Asn	Leu	Ala	Val	Leu	Asp	Leu	Cys	Phe	Ser	Ser	Val	Thr	Ala	Pro	Lys
65					70					75					80
Met	Leu	Val	Asp	Leu	Leu	Ser	Glu	Lys	Lys	Thr	Ile	Ser	Tyr	Gln	Gly
				85					90					95	
Cys	Met	Gly	Gln	Ile	Phe	Phe	Phe	His	Phe	Leu	Gly	Gly	Ala	Met	Val
			100					105					110		
Phe	Phe	Leu	Ser	Val	Met	Ala	Phe	Asp	Arg	Leu	Ile	Ala	Ile	Ser	Arg
		115					120					125			
Pro	Leu	Arg	Tyr	Val	Thr	Val	Met	Asn	Thr	Gln	Leu	Trp	Val	Gly	Leu
	130					135					140				
Val	Val	Ala	Thr	Trp	Val	Gly	Gly	Phe	Val	His	Ser	Ile	Val	Gln	Leu
145					150					155				160	
Ala	Leu	Met	Leu	Pro	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Ile	Leu	Asp	Asn
				165					170					175	
Phe	Tyr	Cys	Asp	Val	Pro	Gln	Val	Leu	Arg	Leu	Ala	Cys	Thr	Asp	Thr
			180					185					190		
Ser	Leu	Leu	Glu	Phe	Leu	Lys	Ile	Ser	Asn	Ser	Gly	Leu	Leu	Asp	Val
	195						200					205			
Val	Trp	Phe	Phe	Leu	Leu	Leu	Met	Ser	Tyr	Leu	Phe	Ile	Leu	Val	Met
	210					215					220				
Leu	Arg	Ser	His	Pro	Gly	Glu	Ala	Arg	Arg	Lys	Ala	Ala	Ser	Thr	Cys
225					230					235					240
Thr	Thr	His	Ile	Ile	Val	Val	Ser	Met	Ile	Phe	Val	Pro	Ser	Ile	Tyr
			245						250					255	
Leu	Tyr	Ala	Arg	Pro	Phe	Thr	Pro	Phe	Pro	Met	Asp	Lys	Leu	Val	Ser
		260						265					270		
Ile	Gly	His	Thr	Val	Met	Thr	Pro	Met	Leu	Asn	Pro	Met	Ile	Tyr	Thr
	275						280					285			
Leu	Arg	Asn	Gln	Asp	Met	Gln	Ala	Ala	Val	Arg	Arg	Leu	Gly	Arg	His

Ser Thr Cys Ala Ala His Leu Thr Val Val Thr Leu Phe Leu Gly His
 245 250 255
 Cys Ile Phe Ile Tyr Ser Arg Pro Ser Thr Ser Leu Pro Glu Asp Lys
 260 265 270
 Val Val Ser Val Phe Phe Thr Ala Val Thr Pro Leu Leu Asn Pro Ile
 275 280 285
 Ile Tyr Thr Leu Arg Asn Glu Asp Met Lys Ser Ala Leu Asn Lys Leu
 290 295 300
 Ile Lys Arg Arg Glu Lys
 305 310

<210> 79
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 79
 Met Glu Lys Ala Val Leu Ile Asn Gln Thr Ser Val Met Ser Phe Arg
 1 5 10 15
 Leu Thr Gly Leu Ser Thr Asn Pro Lys Val Gln Met Ala Ile Phe Phe
 20 25 30
 Ile Phe Leu Ile Phe Tyr Val Leu Thr Leu Val Gly Asn Ile Leu Ile
 35 40 45
 Val Val Thr Ile Ile His Asp His Arg Leu His Thr Pro Met Tyr Phe
 50 55 60
 Phe Leu Ser Asn Leu Ser Phe Ile Asp Val Cys His Ser Thr Val Thr
 65 70 75 80
 Val Pro Lys Met Leu Ser Asp Thr Phe Ser Glu Glu Lys Leu Ile Ser
 85 90 95
 Phe Asp Asp Cys Val Val Gln Ile Phe Phe Leu His Leu Phe Ala Cys
 100 105 110
 Thr Glu Ile Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala
 115 120 125
 Ile Cys Lys Pro Leu Arg Tyr Met Thr Ile Met Asn Trp Lys Val Cys
 130 135 140
 Met Val Leu Gly Gly Ala Met Trp Thr Ala Gly Thr Ile His Ser Ile
 145 150 155 160
 Ser Phe Thr Ser Leu Thr Ile Lys Leu Pro Tyr Cys Gly Pro Asn Glu
 165 170 175
 Leu Asp Ser Phe Phe Cys Asp Val Pro Gln Val Ile Glu Leu Ala Cys
 180 185 190

Thr Asp Thr Arg Ile Thr Glu Ile Leu Val Val Ser Asn Ser Gly Met
 195 200 205
 Ile Ser Met Val Cys Phe Val Ile Ile Val Val Ser Tyr Ala Val Ile
 210 215 220
 Leu Val Ser Leu Arg Gln Gln Ile Ser Asp Gly Lys Arg Lys Ala Leu
 225 230 235 240
 Ser Thr Cys Ala Ala His Leu Thr Val Val Thr Leu Phe Leu Gly His
 245 250 255
 Cys Ile Phe Ile Tyr Ser Arg Pro Ala Ile Ser Leu Pro Glu Asp Lys
 260 265 270
 Ile Val Ser Ala Phe Phe Thr Ala Ile Thr Pro Leu Leu Asn Pro Ile
 275 280 285
 Ile Tyr Thr Phe Arg Asn Glu Asp Met Lys Ser Ala Leu Lys Lys Leu
 290 295 300
 Ile Arg Arg Lys Glu Gly Lys Glu Lys
 305 310

<210> 80
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 80
 cctccaaaga gccactttct tcctgacggg cttccaaggt ctagaagggt tccatggctg 60
 gatctctatt cccttctgct tcactctacct gacagttatc ttgggggaacc tcaccattct 120
 ccacgtcatt tgtactgatg ccactctcca tggacccatg tactatttct tgggcatgct 180
 agctgtcaca gacttaggcc ttgaccttc cactactgcc actgtgctgg gcattttctg 240
 gtttgatacc agagagattg gcatccctgc ctgtttcact cagctcttct tcatccacac 300
 cttgtcttca atggagtcac cagttctgtt atccatgtcc attgaccgct acgtggccgt 360
 ctgcaaccca ctgcatgact ccaccgtcct gacacctgca tgtattgtca agatggggct 420
 aagctcagtg cttagaagtg ctctcctcat cctccccttg ccattcctcc tgaagcgctt 480
 ccaatactgc cactcccatg tgctggctca tgcttattgt cttcacctgg agatcatgaa 540
 gctggcctgc tctagcatca ttgtcaatca catctatggg ctctttgttg tggcctgcac 600
 cgtgggtgtg gactccctgc tcatctttct ctcatacgcc ctcactcttc gcaccgtgct 660
 cagcattgcc tcccaccagg agcgactccg agccctcaac acctgtgtct ctcatatctg 720
 tgctgtactg ctcttctaca tcccctgat tggttgtct cttgtgcac gctttggtga 780
 acatctgccc cgcgttgtac acctcttcat gtccatgtg tatctgctgg taccaccct 840
 tatgaacccc atcatctaca gcatcaagac caagcaaatt cgccagcgca tcattaagaa 900
 gtttcagttt ataaagtcac ttaggtgttt ttggaaggat taagttagag taaagagagg 960
 aagttttgga cataaagccc acag 984

<210> 81
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 81

Leu Gln Arg Ala Thr Phe Phe Leu Thr Gly Phe Gln Gly Leu Glu Gly
 1 5 10 15
 Leu His Gly Trp Ile Ser Ile Pro Phe Cys Phe Ile Tyr Leu Thr Val
 20 25 30
 Ile Leu Gly Asn Leu Thr Ile Leu His Val Ile Cys Thr Asp Ala Thr
 35 40 45
 Leu His Gly Pro Met Tyr Tyr Phe Leu Gly Met Leu Ala Val Thr Asp
 50 55 60
 Leu Gly Leu Cys Leu Ser Thr Leu Pro Thr Val Leu Gly Ile Phe Trp
 65 70 75 80
 Phe Asp Thr Arg Glu Ile Gly Ile Pro Ala Cys Phe Thr Gln Leu Phe
 85 90 95
 Phe Ile His Thr Leu Ser Ser Met Glu Ser Ser Val Leu Leu Ser Met
 100 105 110
 Ser Ile Asp Arg Tyr Val Ala Val Cys Asn Pro Leu His Asp Ser Thr
 115 120 125
 Val Leu Thr Pro Ala Cys Ile Val Lys Met Gly Leu Ser Ser Val Leu
 130 135 140
 Arg Ser Ala Leu Leu Ile Leu Pro Leu Pro Phe Leu Leu Lys Arg Phe
 145 150 155 160
 Gln Tyr Cys His Ser His Val Leu Ala His Ala Tyr Cys Leu His Leu
 165 170 175
 Glu Ile Met Lys Leu Ala Cys Ser Ser Ile Ile Val Asn His Ile Tyr
 180 185 190
 Gly Leu Phe Val Val Ala Cys Thr Val Gly Val Asp Ser Leu Leu Ile
 195 200 205
 Phe Leu Ser Tyr Ala Leu Ile Leu Arg Thr Val Leu Ser Ile Ala Ser
 210 215 220
 His Gln Glu Arg Leu Arg Ala Leu Asn Thr Cys Val Ser His Ile Cys
 225 230 235 240
 Ala Val Leu Leu Phe Tyr Ile Pro Met Ile Gly Leu Ser Leu Val His
 245 250 255
 Arg Phe Gly Glu His Leu Pro Arg Val Val His Leu Phe Met Ser Tyr
 260 265 270
 Val Tyr Leu Leu Val Pro Pro Leu Met Asn Pro Ile Ile Tyr Ser Ile
 275 280 285
 Lys Thr Lys Gln Ile Arg Gln Arg Ile Ile Lys Lys Phe Gln Phe Ile
 290 295 300

Lys Ser Leu Arg Cys Phe Trp Lys Asp
305 310

<210> 82
<211> 1008
<212> DNA
<213> Homo sapiens

<400> 82
ctatgacaat tcttcttaat gcagcctcca aagagccact ttcttctga cgggcttcca 60
aggtctagaa ggtctccatg gctggatctc tattcccttc tgcttcatct acctgacagt 120
tatcttgggg aacctcacca ttctccacgt catttgtact gatgccactc tccatggacc 180
catgtactat ttcttgggca tgctagctgt cacagactta ggcctttgcc tttccacact 240
gcccactgtg ctgggcattt tctggtttga taccagagag attggcatcc ctgctgttt 300
cactcagctc ttcttcatcc acacctgtgc ttcaatggag tcatcagttc tggtatccat 360
gtccattgac cgtccgtgg ccgtctgcaa cccactgcat gactccaccg tcctgacacc 420
tgcatgtatt gtcaagatgg ggctaagctc agtgcttaga agtgctctcc tcatcctccc 480
cttgccattc ctctgaagc gcttccaata ctgccactcc catgtgctgg ctcatgctta 540
ttgtcttcac ctggagatca tgaagctggc ctgctctagc atcattgtca atcacatcta 600
tgggtctctt gttgtggcct gcaccgtggg tgtggactcc ctgctcatct ttctctcata 660
cgccctcatc ctctgcaccg tgctcagcat tgctccccc caggagcgac tccgagccct 720
caacacctgt gtctctcata tctgtgctgt actgctcttc tacatcccca tgattggctt 780
gtctcttggt catcgctttg gtgaacatct gcccgcgtt gtacacctct tcatgtctta 840
tgtgtatctg ctggtaccac cccttatgaa ccccatcatc tacagcatca agaccaagca 900
aattcgccag cgcattcata agaagtttca gtttataaag tcacttaggt gtttttggaa 960
ggattaagtt agagtaaaga gaggaagttt tggacataaa gcccacag 1008

<210> 83
<211> 315
<212> PRT
<213> Homo sapiens

<400> 83
Cys Ser Leu Gln Arg Ala Thr Phe Phe Leu Thr Gly Phe Gln Gly Leu
1 5 10 15
Glu Gly Leu His Gly Trp Ile Ser Ile Pro Phe Cys Phe Ile Tyr Leu
20 25 30
Thr Val Ile Leu Gly Asn Leu Thr Ile Leu His Val Ile Cys Thr Asp
35 40 45
Ala Thr Leu His Gly Pro Met Tyr Tyr Phe Leu Gly Met Leu Ala Val
50 55 60
Thr Asp Leu Gly Leu Cys Leu Ser Thr Leu Pro Thr Val Leu Gly Ile
65 70 75 80
Phe Trp Phe Asp Thr Arg Glu Ile Gly Ile Pro Ala Cys Phe Thr Gln
85 90 95
Leu Phe Phe Ile His Thr Leu Ser Ser Met Glu Ser Ser Val Leu Leu
100 105 110
Ser Met Ser Ile Asp Arg Ser Val Ala Val Cys Asn Pro Leu His Asp

115	120	125
Ser Thr Val Leu Thr Pro Ala Cys Ile Val Lys Met Gly Leu Ser Ser 130 135 140		
Val Leu Arg Ser Ala Leu Leu Ile Leu Pro Leu Pro Phe Leu Leu Lys 145 150 155 160		
Arg Phe Gln Tyr Cys His Ser His Val Leu Ala His Ala Tyr Cys Leu 165 170 175		
His Leu Glu Ile Met Lys Leu Ala Cys Ser Ser Ile Ile Val Asn His 180 185 190		
Ile Tyr Gly Leu Phe Val Val Ala Cys Thr Val Gly Val Asp Ser Leu 195 200 205		
Leu Ile Phe Leu Ser Tyr Ala Leu Ile Leu Arg Thr Val Leu Ser Ile 210 215 220		
Ala Ser His Gln Glu Arg Leu Arg Ala Leu Asn Thr Cys Val Ser His 225 230 235 240		
Ile Cys Ala Val Leu Leu Phe Tyr Ile Pro Met Ile Gly Leu Ser Leu 245 250 255		
Val His Arg Phe Gly Glu His Leu Pro Arg Val Val His Leu Phe Met 260 265 270		
Ser Tyr Val Tyr Leu Leu Val Pro Pro Leu Met Asn Pro Ile Ile Tyr 275 280 285		
Ser Ile Lys Thr Lys Gln Ile Arg Gln Arg Ile Ile Lys Lys Phe Gln 290 295 300		
Phe Ile Lys Ser Leu Arg Cys Phe Trp Lys Asp 305 310 315		

<210> 84
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 84
 Met Ser Ser Ser Ser Ser Ser His Pro Phe Leu Leu Thr Gly Phe Pro
 1 5 10 15
 Gly Leu Glu Glu Ala His His Trp Ile Ser Val Phe Phe Leu Phe Met
 20 25 30
 Tyr Ile Ser Ile Leu Phe Gly Asn Gly Thr Leu Leu Leu Leu Ile Lys
 35 40 45
 Glu Asp His Asn Leu His Glu Pro Met Tyr Phe Phe Leu Ala Met Leu
 50 55 60

Ala Ala Thr Asp Leu Gly Leu Ala Leu Thr Thr Met Pro Thr Val Leu
 65 70 75 80
 Gly Val Leu Trp Leu Asp His Arg Glu Ile Gly Ser Ala Ala Cys Phe
 85 90 95
 Ser Gln Ala Tyr Phe Ile His Ser Leu Ser Phe Leu Glu Ser Gly Ile
 100 105 110
 Leu Leu Ala Met Ala Tyr Asp Arg Phe Ile Ala Ile Cys Asn Pro Leu
 115 120 125
 Arg Tyr Thr Ser Val Leu Thr Asn Thr Arg Val Val Lys Ile Gly Leu
 130 135 140
 Gly Val Leu Met Arg Gly Phe Val Ser Val Val Pro Pro Ile Arg Pro
 145 150 155 160
 Leu Tyr Phe Phe Leu Tyr Cys His Ser His Val Leu Ser His Ala Phe
 165 170 175
 Cys Leu His Gln Asp Val Ile Lys Leu Ala Cys Ala Asp Thr Thr Phe
 180 185 190
 Asn Arg Leu Tyr Pro Ala Val Leu Val Val Phe Ile Phe Val Leu Asp
 195 200 205
 Tyr Leu Ile Ile Phe Ile Ser Tyr Val Leu Ile Leu Lys Thr Val Leu
 210 215 220
 Ser Ile Ala Ser Arg Glu Glu Arg Ala Lys Ala Leu Ile Thr Cys Val
 225 230 235 240
 Ser His Ile Cys Cys Val Leu Val Phe Tyr Val Thr Val Ile Gly Leu
 245 250 255
 Ser Leu Ile His Arg Phe Gly Lys Gln Val Pro His Ile Val His Leu
 260 265 270
 Ile Met Ser Tyr Ala Tyr Phe Leu Phe Pro Pro Leu Met Asn Pro Ile
 275 280 285
 Thr Tyr Ser Val Lys Thr Lys Gln Ile Gln Asn Ala Ile Leu His Leu
 290 295 300
 Phe Thr Thr His Arg Ile Gly Thr
 305 310

<210> 85
 <211> 319
 <212> PRT
 <213> Mus musculus

<400> 85
 Met Ala Thr Ser Asn Ser Ser Thr Ile Val Ser Ser Thr Phe Tyr Leu
 1 5 10 15

Thr Gly Ile Pro Gly Tyr Glu Glu Phe His His Trp Ile Ser Ile Pro
 20 25 30

Phe Cys Phe Leu Tyr Leu Val Gly Ile Thr Gly Asn Cys Met Ile Leu
 35 40 45

His Ile Val Arg Thr Asp Pro Arg Leu His Glu Pro Met Tyr Tyr Phe
 50 55 60

Leu Ala Met Leu Ser Leu Thr Asp Met Ala Met Ser Leu Pro Thr Met
 65 70 75 80

Met Ser Leu Phe Arg Val Leu Trp Ser Ile Ser Arg Glu Ile Gln Phe
 85 90 95

Asn Ile Cys Val Val Gln Met Phe Leu Ile His Thr Phe Ser Phe Thr
 100 105 110

Glu Ser Ser Val Leu Leu Ala Met Ala Leu Asp Arg Tyr Val Ala Ile
 115 120 125

Cys His Pro Leu Arg Tyr Ala Thr Ile Leu Thr Pro Lys Leu Ile Ala
 130 135 140

Lys Ile Gly Thr Ala Ala Leu Leu Arg Ser Ser Ile Leu Ile Ile Pro
 145 150 155 160

Leu Ile Ala Arg Leu Ala Phe Phe Pro Phe Cys Gly Ser His Val Leu
 165 170 175

Ser His Ser Tyr Cys Leu His Gln Asp Met Ile Arg Leu Ala Cys Ala
 180 185 190

Asp Ile Arg Phe Asn Val Ile Tyr Gly Leu Val Leu Ile Thr Leu Leu
 195 200 205

Trp Gly Met Asp Ser Leu Gly Ile Phe Val Ser Tyr Val Leu Ile Leu
 210 215 220

His Ser Val Leu Lys Ile Ala Ser Arg Glu Gly Arg Leu Lys Ala Leu
 225 230 235 240

Asn Thr Cys Ala Ser His Ile Cys Ala Val Leu Ile Leu Tyr Val Pro
 245 250 255

Met Ile Gly Leu Ser Ile Val His Arg Phe Ala Lys His Ser Ser Pro
 260 265 270

Leu Ile His Ile Phe Met Ala His Ile Tyr Leu Leu Val Pro Pro Val
 275 280 285

Leu Asn Pro Ile Ile Tyr Ser Val Lys Thr Lys Gln Ile Arg Glu Gly
 290 295 300

Ile Leu His Leu Leu Cys Ser Pro Lys Ile Ser Ser Ile Thr Met
 305 310 315

<210> 86
 <211> 315
 <212> PRT
 <213> Mus musculus

<400> 86
 Met Pro Ser Met Trp Leu Asn Ile Ser Ser Ser Pro Phe Leu Leu Thr
 1 5 10 15
 Gly Phe Pro Gly Leu Glu Lys Ala His His Leu Ile Ser Leu Pro Leu
 20 25 30
 Leu Met Ala Tyr Ile Ser Ile Leu Leu Gly Asn Gly Thr Leu Leu Phe
 35 40 45
 Leu Ile Lys Asp Asp His Asn Leu His Glu Pro Met Tyr Tyr Phe Leu
 50 55 60
 Gly Met Leu Ala Ala Thr Asp Leu Gly Val Thr Leu Thr Thr Met Pro
 65 70 75 80
 Thr Val Leu Ser Val Leu Trp Leu Asn His Arg Glu Ile Gly His Gly
 85 90 95
 Ala Cys Phe Ser Gln Ala Tyr Phe Ile His Thr Leu Ser Ile Val Glu
 100 105 110
 Ser Gly Val Leu Leu Ala Met Ala Tyr Asp Arg Phe Ile Ala Ile Arg
 115 120 125
 Asn Pro Leu Arg Tyr Thr Thr Ile Leu Thr Asp Thr Lys Val Ile Lys
 130 135 140
 Ile Gly Ile Gly Leu Val Met Arg Ala Gly Leu Ser Ile Met Pro Ile
 145 150 155 160
 Ile Ile Arg Leu His Trp Phe Pro Tyr Cys Arg Ser His Val Leu Ser
 165 170 175
 His Ala Phe Cys Leu His Gln Asp Val Ile Lys Leu Ala Cys Ala Asp
 180 185 190
 Ile Thr Phe Asn Arg Leu Tyr Pro Val Val Val Val Phe Ala Met Val
 195 200 205
 Leu Leu Asp Phe Leu Ile Ile Phe Phe Ser Tyr Val Leu Ile Leu Lys
 210 215 220
 Thr Val Met Gly Ile Ala Ser Thr Asp Glu Arg Ala Lys Ala Leu Asn
 225 230 235 240
 Thr Cys Val Ser His Ile Cys Cys Ile Leu Val Phe Tyr Val Thr Val
 245 250 255
 Val Gly Leu Thr Phe Ile His Arg Phe Gly Lys Asn Val Pro His Val

260	265	270
Val His Ile Thr Met Ser Tyr	Ile Tyr Phe Leu Phe Pro	Pro Phe Met
275	280	285
Asn Pro Val Ile Tyr Ser	Ile Lys Thr Lys Gln Ile	Gln Ser Gly Leu
290	295	300
Leu Arg Leu Phe Ser	Leu Pro Cys Ser Lys	Thr
305	310	315

<210> 87
 <211> 311
 <212> PRT
 <213> Mus musculus

<400> 87
 Met Trp Pro Asn Ser Ser Asp Ala Pro Phe Leu Leu Thr Gly Phe Leu
 1 5 10 15

Gly Leu Glu Met Ile His His Trp Ile Ser Ile Pro Phe Phe Val Ile
 20 25 30

Tyr Phe Ser Ile Ile Val Gly Asn Gly Thr Leu Leu Phe Ile Ile Trp
 35 40 45

Ser Asp His Ser Leu His Glu Pro Met Tyr Tyr Phe Leu Ala Val Leu
 50 55 60

Ala Ser Met Asp Leu Gly Met Thr Leu Thr Thr Met Pro Thr Val Leu
 65 70 75 80

Gly Val Leu Val Leu Asn Gln Arg Glu Ile Val His Gly Ala Cys Phe
 85 90 95

Ile Gln Ser Tyr Phe Ile His Ser Leu Ala Ile Val Glu Ser Gly Val
 100 105 110

Leu Leu Ala Met Ser Tyr Asp Arg Phe Val Ala Ile Cys Thr Pro Leu
 115 120 125

His Tyr Asn Ser Ile Leu Thr Asn Ser Arg Val Met Lys Met Ala Leu
 130 135 140

Gly Ala Leu Leu Arg Gly Phe Val Ser Ile Val Pro Pro Ile Met Pro
 145 150 155 160

Leu Phe Trp Phe Pro Tyr Cys His Ser His Val Leu Ser His Ala Phe
 165 170 175

Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Ala Asp Ile Thr Phe
 180 185 190

Asn Leu Ile Tyr Pro Val Val Leu Val Ala Leu Thr Phe Phe Leu Asp
 195 200 205

Ala Leu Ile Ile Ile Phe Ser Tyr Val Leu Ile Leu Lys Lys Val Met
210 215 220

Gly Ile Ala Ser Gly Glu Glu Arg Lys Lys Ser Leu Asn Thr Cys Val
225 230 235 240

Ser His Ile Ser Cys Val Leu Val Phe Tyr Ile Thr Val Ile Gly Leu
245 250 255

Thr Phe Ile His Arg Phe Gly Lys Asn Ala Pro His Val Val His Ile
260 265 270

Thr Met Ser Tyr Val Tyr Phe Leu Phe Pro Pro Phe Met Asn Pro Ile
275 280 285

Ile Tyr Ser Ile Lys Thr Lys Gln Ile Gln Arg Ser Ile Leu Arg Leu
290 295 300

Leu Ser Lys His Ser Arg Thr
305 310

<210> 88
<211> 307
<212> PRT
<213> Mus musculus

<400> 88
Met Trp Ser Asn Ile Ser Ala Ala Pro Phe Leu Leu Thr Gly Phe Pro
1 5 10 15

Gly Leu Glu Ala Ala His His Trp Ile Ser Ile Pro Phe Phe Ala Ile
20 25 30

Tyr Ile Ser Val Leu Leu Gly Asn Gly Thr Leu Leu Tyr Leu Ile Lys
35 40 45

Asp Asp His Asn Leu His Glu Pro Met Tyr Tyr Phe Leu Ala Met Leu
50 55 60

Ala Gly Thr Asp Leu Thr Val Thr Leu Thr Thr Met Pro Thr Val Met
65 70 75 80

Ala Val Leu Trp Val Asn His Arg Glu Ile Arg His Gly Ala Cys Phe
85 90 95

Leu Gln Ala Tyr Ile Ile His Ser Leu Ser Ile Val Glu Ser Gly Val
100 105 110

Leu Leu Ala Met Ser Tyr Asp Arg Phe Val Ala Ile Cys Thr Pro Leu
115 120 125

His Tyr Asn Ser Ile Leu Thr Asn Ser Arg Val Ile Ala Ile Gly Leu
130 135 140

Gly Val Val Leu Arg Gly Phe Leu Ser Leu Val Pro Pro Ile Leu Pro
145 150 155 160

Leu Phe Trp Phe Ser Tyr Cys Arg Ser His Val Leu Ser His Ala Phe
 165 170 175
 Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Ala Asp Ile Thr Phe
 180 185 190
 Asn Arg Ile Tyr Pro Val Val Leu Val Ala Leu Thr Phe Phe Leu Asp
 195 200 205
 Ala Leu Ile Ile Val Phe Ser Tyr Val Leu Ile Leu Lys Thr Val Met
 210 215 220
 Gly Ile Ala Ser Gly Glu Glu Arg Ala Lys Ala Leu Asn Thr Cys Val
 225 230 235 240
 Ser His Ile Ser Cys Val Leu Val Phe Tyr Ile Thr Val Ile Gly Leu
 245 250 255
 Thr Phe Ile His Arg Phe Gly Lys Asn Ala Pro His Val Val His Ile
 260 265 270
 Thr Met Ser Tyr Val Tyr Phe Leu Phe Pro Pro Phe Met Asn Pro Ile
 275 280 285
 Ile Tyr Ser Ile Lys Thr Lys Gln Ile Gln Arg Ser Val Leu His Leu
 290 295 300
 Leu Ser Val
 305

<210> 89
 <211> 922
 <212> DNA
 <213> Homo sapiens

<400> 89
 cagtgaattt gttctcgtga gcttctcagc cctgtccact gagcttcagg ctctactgtt 60
 tctccttttc ttgaccattt acttggttac tttaatgggc aatgtcctca tcctcctggg 120
 cactatagct gactctgcac tacaaagtcc tatgtacttc ttctcagaa acttgctcct 180
 cctggagata gggttcaact tggtcattgt gtccaagatg ctggggaccc tgatcattca 240
 agacacaacc atctccttcc ttggatgtgc cactcagatg tatttcttct tcttttttgg 300
 ggctgctgag tgctgcctcc tggccaccat ggcataatgac cgctacgtgg ccactctgtga 360
 ccccttgtag taccagtgca tcatggggcca catatcctgt gccagctgg cagctgcctc 420
 ttggttctca ggggttttcag tggccactgt gcaaaccaca tggattttca gtttcccttt 480
 ttgtggcccc aacagggtga accacttctt ctgtgacagc cctcctgtta ttgactggg 540
 ctgtgctgac acctctgtgt ttgaactgga ggctctgaca gccactgtcc tattcattct 600
 ctttcccttc ttgtgatcc tgggataccta tgtccgcac ctctccacta tcttcaggat 660
 gccgtcagct gaggggaaac atcaggcatt ctccacctgt tccgcccacc tcttggttgt 720
 ctctctcttc tatagcactg ccctcctcac gtatttccga cccaatcca gtgcctcttc 780
 tgagagcaag aagctgctgt cactctcttc cacagtggg actcccatgt tgaaccccat 840
 catctacagc tcaaggaata aagaagtga ggctgcactg aagcggctta tccacaggaa 900
 cctgggctct cagaaactat ga 922

<210> 90

<211> 306
 <212> PRT
 <213> Homo sapiens

<400> 90
 Ser Glu Phe Val Leu Val Ser Phe Ser Ala Leu Ser Thr Glu Leu Gln
 1 5 10 15
 Ala Leu Leu Phe Leu Leu Phe Leu Thr Ile Tyr Leu Val Thr Leu Met
 20 25 30
 Gly Asn Val Leu Ile Ile Leu Val Thr Ile Ala Asp Ser Ala Leu Gln
 35 40 45
 Ser Pro Met Tyr Phe Phe Leu Arg Asn Leu Ser Phe Leu Glu Ile Gly
 50 55 60
 Phe Asn Leu Val Ile Val Ser Lys Met Leu Gly Thr Leu Ile Ile Gln
 65 70 75 80
 Asp Thr Thr Ile Ser Phe Leu Gly Cys Ala Thr Gln Met Tyr Phe Phe
 85 90 95
 Phe Phe Phe Gly Ala Ala Glu Cys Cys Leu Leu Ala Thr Met Ala Tyr
 100 105 110
 Asp Arg Tyr Val Ala Ile Cys Asp Pro Leu Tyr Tyr Pro Val Ile Met
 115 120 125
 Gly His Ile Ser Cys Ala Gln Leu Ala Ala Ala Ser Trp Phe Ser Gly
 130 135 140
 Phe Ser Val Ala Thr Val Gln Thr Thr Trp Ile Phe Ser Phe Pro Phe
 145 150 155 160
 Cys Gly Pro Asn Arg Val Asn His Phe Phe Cys Asp Ser Pro Pro Val
 165 170 175
 Ile Ala Leu Val Cys Ala Asp Thr Ser Val Phe Glu Leu Glu Ala Leu
 180 185 190
 Thr Ala Thr Val Leu Phe Ile Leu Phe Pro Phe Leu Leu Ile Leu Gly
 195 200 205
 Ser Tyr Val Arg Ile Leu Ser Thr Ile Phe Arg Met Pro Ser Ala Glu
 210 215 220
 Gly Lys His Gln Ala Phe Ser Thr Cys Ser Ala His Leu Leu Val Val
 225 230 235 240
 Ser Leu Phe Tyr Ser Thr Ala Ile Leu Thr Tyr Phe Arg Pro Gln Ser
 245 250 255
 Ser Ala Ser Ser Glu Ser Lys Lys Leu Leu Ser Leu Ser Ser Thr Val
 260 265 270
 Val Thr Pro Met Leu Asn Pro Ile Ile Tyr Ser Ser Arg Asn Lys Glu

275	280	285
Val Lys Ala Ala Leu Lys Arg Leu Ile His Arg Asn Leu Gly Ser Gln		
290	295	300
Lys Leu		
305		
<210> 91		
<211> 315		
<212> PRT		
<213> Homo sapiens		
<400> 91		
Met Met Trp Glu Asn Trp Thr Ile Val Ser Glu Phe Val Leu Val Ser		
1	5	10 15
Phe Ser Ala Leu Ser Thr Glu Leu Gln Ala Leu Leu Phe Leu Leu Phe		
20	25	30
Leu Thr Ile Tyr Leu Val Thr Leu Met Gly Asn Val Leu Ile Ile Leu		
35	40	45
Val Thr Ile Ala Asp Ser Ala Leu Gln Ser Pro Met Tyr Phe Phe Leu		
50	55	60
Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro		
65	70	75 80
Lys Met Leu Gly Thr Leu Ile Ile Gln Asp Thr Thr Ile Ser Phe Leu		
85	90	95
Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Phe Gly Ala Ala Glu		
100	105	110
Cys Cys Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys		
115	120	125
Asp Pro Leu His Tyr Pro Val Ile Met Gly His Ile Ser Cys Ala Gln		
130	135	140
Leu Ala Ala Ala Ser Trp Phe Ser Gly Phe Ser Val Ala Thr Val Gln		
145	150	155 160
Thr Thr Trp Ile Phe Ser Phe Pro Phe Cys Gly Pro Asn Arg Val Asn		
165	170	175
His Phe Phe Cys Asp Ser Pro Pro Val Ile Ala Leu Val Cys Ala Asp		
180	185	190
Thr Ser Val Phe Glu Leu Glu Ala Leu Thr Ala Thr Val Pro Phe Ile		
195	200	205
Leu Phe Pro Phe Leu Leu Ile Leu Gly Ser Tyr Val Arg Ile Leu Ser		
210	215	220

Thr Ile Phe Arg Met Pro Ser Ala Glu Gly Lys His Gln Ala Phe Ser
225 230 235 240

Thr Cys Ser Ala His Leu Leu Val Val Ser Leu Phe Tyr Ser Thr Ala
245 250 255

Ile Leu Thr Tyr Phe Arg Pro Gln Ser Ser Ala Ser Ser Glu Ser Lys
260 265 270

Lys Leu Leu Ser Leu Ser Ser Thr Val Val Thr Pro Met Leu Asn Pro
275 280 285

Ile Ile Tyr Ser Ser Arg Asn Lys Glu Val Lys Ala Ala Leu Lys Arg
290 295 300

Leu Ile His Arg Thr Leu Gly Ser Gln Lys Leu
305 310 315

<210> 92

<211> 315

<212> PRT

<213> Mus musculus

<400> 92

Met Thr Trp Gly Asn Trp Thr Thr Val Arg Glu Phe Ile Leu Met Ser
1 5 10 15

Phe Ser Ser Leu Ser Tyr Glu Val Gln Ala Leu Leu Phe Leu Leu Phe
20 25 30

Leu Ile Ile Tyr Leu Val Thr Leu Met Gly Asn Val Leu Ile Ile Leu
35 40 45

Val Thr Thr Ala Asp Ser Ala Leu Gln Ser Pro Met Tyr Phe Phe Leu
50 55 60

Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro
65 70 75 80

Lys Met Leu Ser Thr Leu Ile Leu Gln Asp Lys Thr Ile Ser Phe Leu
85 90 95

Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Ala Ala Glu
100 105 110

Cys Cys Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Met Ala Ile Cys
115 120 125

Asp Pro Leu His Tyr Pro Ile Ile Met Ser Arg Arg Ser Cys Ala Gln
130 135 140

Leu Ala Ala Ala Ser Trp Phe Ser Gly Phe Pro Val Ala Thr Val Gln
145 150 155 160

Thr Thr Trp Ile Phe Ser Phe Pro Phe Cys Gly Pro Asn Met Val Asn
165 170 175

His Phe Phe Cys Asp Ser Pro Pro Val Ile Ala Leu Val Cys Ala Asp
 180 185 190
 Thr Ser Leu Phe Glu Leu Glu Ala Leu Thr Ala Thr Val Leu Phe Ile
 195 200 205
 Leu Phe Pro Phe Leu Leu Ile Leu Gly Ser Tyr Val Arg Ile Leu Ser
 210 215 220
 Thr Ile Phe Arg Met Pro Ser Ala Glu Gly Lys Arg Lys Ala Phe Ser
 225 230 235 240
 Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Ser Thr Ala
 245 250 255
 Ile Leu Thr Tyr Phe Arg Pro Arg Ser Asn Thr Ser Pro Glu Asn Lys
 260 265 270
 Lys Met Leu Ser Leu Ser Tyr Thr Val Ile Thr Pro Met Leu Asn Pro
 275 280 285
 Ile Ile Tyr Ser Leu Arg Asn Asn Glu Val Lys Ala Ala Leu Arg Arg
 290 295 300
 Ile Ile His Arg Thr Leu Gly Pro Gln Lys Leu
 305 310 315

<210> 93
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 93
 Met Ala Ile Gly Asn Trp Thr Glu Ile Ser Glu Phe Ile Leu Met Ser
 1 5 10 15
 Phe Ser Ser Leu Pro Thr Glu Ile Gln Ser Leu Leu Phe Leu Thr Phe
 20 25 30
 Leu Thr Ile Tyr Leu Val Thr Leu Lys Gly Asn Ser Leu Ile Ile Leu
 35 40 45
 Val Thr Leu Ala Asp Pro Met Leu His Ser Pro Met Tyr Phe Phe Leu
 50 55 60
 Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro
 65 70 75 80
 Lys Met Leu Gly Thr Leu Leu Ala Gln Asp Thr Thr Ile Ser Phe Leu
 85 90 95
 Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Val Ala Glu
 100 105 110
 Cys Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys

115	120	125
Ser Pro Leu His Tyr Pro Val Ile Met Asn Gln Arg Thr Arg Ala Lys		
130	135	140
Leu Ala Ala Ala Ser Trp Phe Pro Gly Phe Pro Val Ala Thr Val Gln		
145	150	155
Thr Thr Trp Leu Phe Ser Phe Pro Phe Cys Gly Thr Asn Lys Val Asn		
	165	170
His Phe Phe Cys Asp Ser Pro Pro Val Leu Lys Leu Val Cys Ala Asp		
	180	185
Thr Ala Leu Phe Glu Ile Tyr Ala Ile Val Gly Thr Ile Leu Val Val		
	195	200
Met Ile Pro Cys Leu Leu Ile Leu Cys Ser Tyr Thr Arg Ile Ala Ala		
	210	215
Ala Ile Leu Lys Ile Pro Ser Ala Lys Gly Lys His Lys Ala Phe Ser		
	225	230
Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Ile Ser Ser		
	245	250
Ser Leu Thr Tyr Phe Trp Pro Lys Ser Asn Asn Ser Pro Glu Ser Lys		
	260	265
Lys Leu Leu Ser Leu Ser Tyr Thr Val Val Thr Pro Met Leu Asn Pro		
	275	280
Ile Ile Tyr Ser Leu Arg Asn Ser Glu Val Lys Asn Ala Leu Ser Arg		
	290	295
Thr Phe His Lys Val Leu Ala Leu Arg Asn Cys Ile Pro		
	305	310

<210> 94
 <211> 317
 <212> PRT
 <213> Mus musculus

<400> 94
 Met Ala Thr Gly Asn Gln Thr Arg Ile Thr Glu Phe Ile Leu Met Ser
 1 5 10 15
 Phe Ser Ser Leu Pro Thr Glu Ile Gln Thr Leu Leu Phe Leu Ala Phe
 20 25 30
 Leu Thr Ile Tyr Leu Val Thr Leu Leu Gly Asn Ser Leu Ile Ile Leu
 35 40 45
 Val Thr Leu Ala Asp Pro Met Leu Gln Ser Pro Met Tyr Phe Phe Leu
 50 55 60

Arg	Asn	Leu	Ser	Phe	Leu	Glu	Ile	Gly	Phe	Asn	Leu	Val	Ile	Val	Pro
65					70					75					80
Lys	Met	Leu	Gly	Thr	Leu	Ile	Ala	Gln	Asp	Thr	Ser	Ile	Ser	Phe	Leu
				85					90					95	
Gly	Cys	Ala	Thr	Gln	Met	Tyr	Phe	Phe	Phe	Phe	Phe	Gly	Val	Ala	Glu
			100					105					110		
Cys	Phe	Leu	Leu	Ala	Thr	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys
		115					120					125			
Ser	Pro	Leu	His	Tyr	Pro	Val	Ile	Met	Asn	Gln	Glu	Thr	Arg	Val	Lys
	130					135					140				
Leu	Ala	Ala	Ala	Ser	Trp	Phe	Pro	Gly	Phe	Pro	Val	Ala	Thr	Val	Gln
145					150					155					160
Thr	Thr	Trp	Leu	Phe	Ser	Phe	Pro	Phe	Cys	Ala	Thr	Asn	Lys	Val	Asn
			165						170					175	
His	Phe	Phe	Cys	Asp	Ser	Pro	Pro	Val	Leu	Arg	Leu	Val	Cys	Ala	Asp
			180					185					190		
Thr	Ala	Gln	Phe	Glu	Val	Tyr	Ala	Ile	Val	Gly	Thr	Ile	Leu	Val	Val
		195					200					205			
Met	Ile	Pro	Cys	Leu	Leu	Ile	Leu	Cys	Ser	Tyr	Thr	Leu	Ile	Ala	Ala
	210					215					220				
Ser	Ile	Leu	Lys	Ile	Pro	Ser	Ala	Lys	Gly	Lys	His	Lys	Ala	Phe	Ser
225					230					235					240
Thr	Cys	Ser	Ser	His	Leu	Leu	Val	Val	Ser	Leu	Phe	Tyr	Val	Ser	Ser
				245					250					255	
Ser	Leu	Thr	Tyr	Phe	Arg	Pro	Lys	Ser	Asn	Asn	Ser	Pro	Glu	Ser	Lys
			260					265					270		
Lys	Leu	Leu	Ser	Leu	Ser	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro
		275					280					285			
Ile	Ile	Tyr	Ser	Leu	Arg	Asn	Asn	Glu	Val	Lys	Ser	Ala	Leu	Ser	Arg
	290					295					300				
Thr	Phe	His	Lys	Ala	Leu	Ala	Leu	Arg	Asn	His	Ile	Thr			
305					310					315					

<210> 95
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 95
 Ile Ala Thr Gly Asn Trp Thr Arg Ile Ser Glu Phe Ile Leu Met Ser
 1 5 10 15

Phe Ser Ser Leu Pro Thr Glu Ile Gln Ser Leu Leu Phe Leu Thr Phe
20 25 30
Leu Thr Ile Tyr Leu Val Thr Leu Met Gly Asn Cys Leu Ile Ile Leu
35 40 45
Val Thr Leu Ala Asp Pro Met Leu His Ser Pro Met Tyr Phe Phe Leu
50 55 60
Arg Asn Leu Ser Phe Leu Glu Ile Gly Phe Asn Leu Val Ile Val Pro
65 70 75 80
Lys Met Leu Gly Thr Leu Leu Ala Gln Asp Thr Thr Ile Ser Phe Leu
85 90 95
Gly Cys Ala Thr Gln Met Tyr Phe Phe Phe Phe Gly Val Ala Glu
100 105 110
Cys Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
115 120 125
Ser Pro Leu His Tyr Pro Val Ile Met Asn Gln Arg Thr Arg Ala Lys
130 135 140
Leu Ala Ala Thr Ser Trp Phe Pro Gly Phe Pro Val Ala Thr Val Gln
145 150 155 160
Thr Thr Trp Leu Phe Ser Phe Pro Phe Cys Gly Thr Asn Lys Val Asn
165 170 175
His Phe Phe Cys Asp Ser Pro Pro Val Leu Arg Leu Val Cys Ala Asp
180 185 190
Thr Ala Leu Phe Glu Ile Tyr Ala Ile Val Gly Thr Ile Leu Val Val
195 200 205
Met Ile Pro Cys Leu Leu Ile Leu Cys Ser Tyr Thr His Ile Ala Ala
210 215 220
Ala Ile Leu Lys Ile Pro Ser Ala Lys Gly Lys Asn Lys Ala Phe Ser
225 230 235 240
Thr Cys Ser Ser His Leu Leu Val Val Ser Leu Phe Tyr Ile Ser Leu
245 250 255
Ser Leu Thr Tyr Phe Arg Pro Lys Ser Asn Asn Ser Pro Glu Gly Lys
260 265 270
Lys Leu Leu Ser Leu Ser Tyr Thr Val Met Thr Pro Met Leu Asn Pro
275 280 285
Ile Ile Tyr Ser Leu Arg Asn Asn Glu Val Lys Asn Ala Leu Ser Arg
290 295 300
Thr Val Ser Lys Ala Leu Ala Leu Arg Asn Cys Ile Pro
305 310 315

<210> 96
 <211> 1019
 <212> DNA
 <213> Homo sapiens

<400> 96
 gtgctggctt cagggaaacag ctcttctcat cctgtgtcct tcactcctgct tggaatccca 60
 ggcctggaga gtttccagtt gtggattgcc tttccgttct gtgccacgta tgctgtggct 120
 gttgttgga atatacactct cctccatgta atcagaattg accacaccct gcatgagccc 180
 atgtacctct ttctggccat gctggccatc actgacctgg tcctctcctc ctccactcaa 240
 cctaagatgt tggccatatt ctggtttcat gctcatgaga ttcagtacca tgctgcctc 300
 atccagggtg tcttcatcca tgcttttct tctgtggagt ctgggggtgct catggctatg 360
 gccctggact gctacgtggc tatctgcttc cactccgac actctagcat cctgacccca 420
 tcggctcgtga tcaaactggg gaccatcgtg atgctgagag ggctgctgtg ggtgagcccc 480
 ttctgcttca tgggtgctag gatgcccttc tgccaacacc aagccattcc ccagtcatac 540
 tgtgagcaca tggctgtgct gaagtgggtg tgtgctgata caagcataag tcgtgggaat 600
 gggctctttg tggccttctc tgtggctggc tttgatatga ttgtcattgg tatgtcatac 660
 gtgatgattt tgagagctgt gcttcagttg cctcaggtg aagcccgct caaagctttt 720
 agcacacgtt cctcccatat ctgtgtcatc ttggctcttt atatcccagc ccttttttct 780
 ttctcacct accgcttttg ccatgatgtg ccccgagttg tacacatcct gtttgctaata 840
 ctctatctac tgatacctcc catgctcaac cccatcattt atggagttag aaccaaacag 900
 atcggggaca gggttatcca aggatgttgt ggaaacatcc cctgagcaaa gggtcagtgt 960
 atccccatca cttacattgc ccactaatg tggggacatt aatgaacatt tgacaggct 1019

<210> 97
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 97
 Val Leu Ala Ser Gly Asn Ser Ser Ser His Pro Val Ser Phe Ile Leu
 1 5 10 15
 Leu Gly Ile Pro Gly Leu Glu Ser Phe Gln Leu Trp Ile Ala Phe Pro
 20 25 30
 Phe Cys Ala Thr Tyr Ala Val Ala Val Val Gly Asn Ile Thr Leu Leu
 35 40 45
 His Val Ile Arg Ile Asp His Thr Leu His Glu Pro Met Tyr Leu Phe
 50 55 60
 Leu Ala Met Leu Ala Ile Thr Asp Leu Val Leu Ser Ser Ser Thr Gln
 65 70 75 80
 Pro Lys Met Leu Ala Ile Phe Trp Phe His Ala His Glu Ile Gln Tyr
 85 90 95
 His Ala Cys Leu Ile Gln Val Phe Phe Ile His Ala Phe Ser Ser Val
 100 105 110
 Glu Ser Gly Val Leu Met Ala Met Ala Leu Asp Cys Tyr Val Ala Ile
 115 120 125

Cys Phe Pro Leu Arg His Ser Ser Ile Leu Thr Pro Ser Val Val Ile
 130 135 140
 Lys Leu Gly Thr Ile Val Met Leu Arg Gly Leu Leu Trp Val Ser Pro
 145 150 155 160
 Phe Cys Phe Met Val Ser Arg Met Pro Phe Cys Gln His Gln Ala Ile
 165 170 175
 Pro Gln Ser Tyr Cys Glu His Met Ala Val Leu Lys Leu Val Cys Ala
 180 185 190
 Asp Thr Ser Ile Ser Arg Gly Asn Gly Leu Phe Val Ala Phe Ser Val
 195 200 205
 Ala Gly Phe Asp Met Ile Val Ile Gly Met Ser Tyr Val Met Ile Leu
 210 215 220
 Arg Ala Val Leu Gln Leu Pro Ser Gly Glu Ala Arg Leu Lys Ala Phe
 225 230 235 240
 Ser Thr Arg Ser Ser His Ile Cys Val Ile Leu Ala Leu Tyr Ile Pro
 245 250 255
 Ala Leu Phe Ser Phe Leu Thr Tyr Arg Phe Gly His Asp Val Pro Arg
 260 265 270
 Val Val His Ile Leu Phe Ala Asn Leu Tyr Leu Leu Ile Pro Pro Met
 275 280 285
 Leu Asn Pro Ile Ile Tyr Gly Val Arg Thr Lys Gln Ile Gly Asp Arg
 290 295 300
 Val Ile Gln Gly Cys Cys Gly Asn Ile Pro
 305 310

<210> 98
 <211> 339
 <212> PRT
 <213> Mus musculus

<400> 98
 Met Pro Glu Lys Met Leu Ser Lys Leu Ile Ala Tyr Leu Leu Leu Ile
 1 5 10 15
 Glu Ser Cys Arg Gln Thr Ala Gln Leu Val Lys Gly Arg Arg Ile Trp
 20 25 30
 Val Asp Ser Arg Pro His Trp Pro Asn Thr Thr His Tyr Arg Glu Leu
 35 40 45
 Glu Asp Gln His Val Trp Ile Ala Ile Pro Phe Cys Ser Met Tyr Ile
 50 55 60
 Leu Ala Leu Val Gly Asn Gly Thr Ile Leu Tyr Ile Ile Ile Thr Asp
 65 70 75 80

Arg Ala Leu His Glu Pro Met Tyr Leu Phe Leu Cys Leu Leu Ser Ile
 85 90 95
 Thr Asp Leu Val Leu Cys Ser Thr Thr Leu Pro Lys Met Leu Ala Ile
 100 105 110
 Phe Trp Leu Arg Ser His Val Ile Ser Tyr His Gly Cys Leu Thr Gln
 115 120 125
 Met Phe Phe Val His Ala Val Phe Ala Thr Glu Ser Ala Val Leu Leu
 130 135 140
 Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys Arg Pro Leu His Tyr
 145 150 155 160
 Thr Ser Ile Leu Asn Ala Val Val Ile Gly Lys Ile Gly Leu Ala Cys
 165 170 175
 Val Thr Arg Gly Leu Leu Phe Val Phe Pro Phe Val Ile Leu Ile Glu
 180 185 190
 Arg Leu Pro Phe Cys Gly His His Ile Ile Pro His Thr Tyr Cys Glu
 195 200 205
 His Met Gly Ile Ala Lys Leu Ala Cys Ala Ser Ile Lys Pro Asn Thr
 210 215 220
 Ile Tyr Gly Leu Thr Val Ala Leu Ser Val Thr Gly Met Asp Val Val
 225 230 235 240
 Leu Ile Ala Thr Ser Tyr Ile Leu Ile Leu Gln Ala Val Leu Arg Leu
 245 250 255
 Pro Ser Lys Asp Ala Gln Phe Arg Ala Phe Ser Thr Cys Gly Ala His
 260 265 270
 Ile Cys Val Ile Leu Val Phe Tyr Ile Pro Ala Phe Phe Ser Phe Phe
 275 280 285
 Thr His Arg Phe Gly His His Val Pro Pro Gln Val His Ile Ile Leu
 290 295 300
 Ala Asn Leu Tyr Leu Leu Val Pro Pro Val Leu Asn Pro Leu Val Tyr
 305 310 315 320
 Gly Ile Asn Thr Lys Gln Ile Arg Leu Arg Ile Leu Asp Phe Phe Val
 325 330 335

Lys Arg Arg

<210> 99
 <211> 326
 <212> PRT
 <213> Mus musculus

<400> 99

Met	Lys	Val	Ala	Ser	Ser	Phe	His	Asn	Asp	Thr	Asn	Pro	Gln	Asp	Val
1				5					10					15	
Trp	Tyr	Val	Leu	Ile	Gly	Ile	Pro	Gly	Leu	Glu	Asp	Leu	His	Ser	Trp
		20						25					30		
Ile	Ala	Ile	Pro	Ile	Cys	Ser	Met	Tyr	Ile	Val	Ala	Val	Ile	Gly	Asn
		35					40					45			
Val	Leu	Leu	Ile	Phe	Leu	Ile	Val	Thr	Glu	Arg	Ser	Leu	His	Glu	Pro
	50					55					60				
Met	Tyr	Phe	Phe	Leu	Ser	Met	Leu	Ala	Leu	Ala	Asp	Leu	Leu	Leu	Ser
65					70					75					80
Thr	Ala	Thr	Ala	Pro	Lys	Met	Leu	Ala	Ile	Phe	Trp	Phe	His	Ser	Arg
				85					90					95	
Gly	Ile	Ser	Phe	Gly	Ser	Cys	Val	Ser	Gln	Met	Phe	Phe	Ile	His	Phe
			100					105					110		
Ile	Phe	Val	Ala	Glu	Ser	Ala	Ile	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg
		115					120					125			
Tyr	Val	Ala	Ile	Cys	Tyr	Pro	Leu	Arg	Tyr	Thr	Thr	Ile	Leu	Thr	Ser
	130					135					140				
Ser	Val	Ile	Gly	Lys	Ile	Gly	Thr	Ala	Ala	Val	Val	Arg	Ser	Phe	Leu
145					150					155					160
Ile	Cys	Phe	Pro	Phe	Ile	Phe	Leu	Val	Tyr	Arg	Leu	Leu	Tyr	Cys	Gly
			165						170					175	
Lys	His	Ile	Ile	Pro	His	Ser	Tyr	Cys	Glu	His	Met	Gly	Ile	Ala	Arg
			180					185					190		
Leu	Ala	Cys	Asp	Asn	Ile	Thr	Val	Asn	Ile	Ile	Tyr	Gly	Leu	Thr	Met
		195					200					205			
Ala	Leu	Leu	Ser	Thr	Gly	Leu	Asp	Ile	Leu	Leu	Ile	Ile	Ile	Ser	Tyr
	210					215					220				
Thr	Met	Ile	Leu	Arg	Thr	Val	Phe	Gln	Ile	Pro	Ser	Trp	Ala	Ala	Arg
225					230					235					240
Tyr	Lys	Ala	Leu	Asn	Thr	Cys	Gly	Ser	His	Ile	Cys	Val	Ile	Leu	Leu
			245						250					255	
Phe	Tyr	Thr	Pro	Ala	Phe	Phe	Ser	Phe	Phe	Ala	His	Arg	Phe	Gly	Gly
		260						265					270		
Lys	Thr	Val	Pro	Arg	His	Ile	His	Ile	Leu	Val	Ala	Asn	Leu	Tyr	Val
		275				280						285			
Val	Val	Pro	Pro	Met	Leu	Asn	Pro	Ile	Ile	Tyr	Gly	Val	Lys	Thr	Lys

290	295	300
Gln Ile Gln Asp Arg Val Val Phe Leu Phe Ser Ser Val Ser Thr Cys		
305	310	315 320
Gln His Asp Ser Arg Cys		
325		
<210> 100		
<211> 316		
<212> PRT		
<213> Mus musculus		
<400> 100		
Met Pro His Leu Asn Ser Thr Ile Phe Arg Pro Ser Val Leu Thr Leu		
1	5	10 15
Thr Gly Ile Pro Gly Leu Glu Ser Val Gln Phe Trp Ile Gly Ile Pro		
	20	25 30
Phe Cys Ile Met Tyr Ile Ile Ala Leu Leu Gly Asn Ser Leu Leu Leu		
	35	40 45
Val Val Ile Lys Val Glu Arg Ser Leu His Glu Pro Met Tyr Leu Phe		
	50	55 60
Leu Ala Met Leu Gly Ala Thr Asp Ile Ser Leu Ser Thr Ser Ile Leu		
	65	70 75 80
Pro Lys Met Leu Gly Ile Phe Trp Phe His Leu Ser Thr Ile Tyr Phe		
	85	90 95
Asp Ala Cys Leu Leu Gln Met Trp Leu Ile His Thr Phe Gln Gly Ile		
	100	105 110
Glu Ser Gly Ile Leu Phe Ala Met Ala Met Asp Arg Tyr Val Ala Ile		
	115	120 125
Cys Asp Pro Leu Arg His Ala Ser Ile Phe Thr Gln Arg Leu Leu Thr		
	130	135 140
Gln Ile Gly Val Gly Val Thr Leu Arg Ala Ala Leu Phe Val Ala Pro		
	145	150 155 160
Cys Leu Phe Leu Ile Lys Cys Arg Leu Lys Phe Tyr Trp Thr Thr Val		
	165	170 175
Val Ser His Ser Tyr Cys Glu His Met Ala Ile Val Lys Leu Ala Ala		
	180	185 190
Glu Asp Val His Val Asn Lys Ile Tyr Gly Leu Phe Val Ala Phe Ser		
	195	200 205
Ile Leu Gly Leu Asp Ile Ile Phe Ile Thr Leu Ser Tyr Ile Arg Ile		
	210	215 220

Phe Ile Thr Val Phe Lys Leu Pro Gln Lys Glu Ala Arg Leu Lys Ala
 225 230 235 240

Phe Asn Thr Cys Val Ala His Ile Cys Val Phe Leu Glu Phe Tyr Leu
 245 250 255

Leu Ala Phe Phe Ser Phe Phe Thr His Arg Phe Gly Tyr His Val Pro
 260 265 270

Ser Tyr Ile His Ile Leu Leu Ser Asn Leu Tyr Leu Leu Val Pro Pro
 275 280 285

Leu Leu Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Gln Ile Arg Asp
 290 295 300

Gln Val Ser Lys Ile Leu Tyr Cys Asn Tyr Ser Tyr
 305 310 315

<210> 101
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 101
 Met Ser Asp Ser Asn Leu Ser Asp Asn His Leu Pro Asp Thr Phe Phe
 1 5 10 15

Leu Thr Gly Ile Pro Gly Leu Glu Ala Ala His Phe Trp Ile Ala Ile
 20 25 30

Pro Phe Cys Ala Met Tyr Leu Val Ala Leu Val Gly Asn Ala Ala Leu
 35 40 45

Ile Leu Val Ile Ala Met Asp Asn Ala Leu His Ala Pro Met Tyr Leu
 50 55 60

Phe Leu Cys Leu Leu Ser Leu Thr Asp Leu Ala Leu Ser Ser Thr Thr
 65 70 75 80

Val Pro Lys Met Leu Ala Ile Leu Trp Leu His Ala Gly Glu Ile Ser
 85 90 95

Phe Gly Gly Cys Leu Ala Gln Met Phe Cys Val His Ser Ile Tyr Ala
 100 105 110

Leu Glu Ser Ser Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala
 115 120 125

Ile Cys Asn Pro Leu Arg Tyr Thr Thr Ile Leu Asn His Ala Val Ile
 130 135 140

Gly Arg Ile Gly Phe Val Gly Leu Phe Arg Ser Val Ala Ile Val Ser
 145 150 155 160

Pro Phe Ile Phe Leu Leu Arg Arg Leu Pro Tyr Cys Gly His Arg Val
 165 170 175

Met Thr His Thr Tyr Cys Glu His Met Gly Ile Ala Arg Leu Ala Cys
 180 185 190
 Ala Asn Ile Thr Val Asn Ile Val Tyr Gly Leu Thr Val Ala Leu Leu
 195 200 205
 Ala Met Gly Leu Asp Ser Ile Leu Ile Ala Ile Ser Tyr Gly Phe Ile
 210 215 220
 Leu His Ala Val Phe His Leu Pro Ser His Asp Ala Gln His Lys Ala
 225 230 235 240
 Leu Ser Thr Cys Gly Ser His Ile Gly Ile Ile Leu Val Phe Tyr Ile
 245 250 255
 Pro Ala Phe Phe Ser Phe Leu Thr His Arg Phe Gly His His Glu Val
 260 265 270
 Pro Lys His Val His Ile Phe Leu Ala Asn Leu Tyr Val Leu Val Pro
 275 280 285
 Pro Val Leu Asn Pro Ile Leu Tyr Gly Ala Arg Thr Lys Glu Ile Arg
 290 295 300
 Ser Arg Leu Leu Lys Leu Leu His Leu Gly Lys Thr Ser Ile
 305 310 315

<210> 102
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 102
 Met Ser Ile Ser Asn Ile Thr Val Tyr Met Pro Ser Val Leu Thr Leu
 1 5 10 15
 Val Gly Ile Pro Gly Leu Glu Ser Val Gln Cys Trp Ile Gly Ile Pro
 20 25 30
 Phe Cys Ala Ile Tyr Leu Ile Ala Met Ile Gly Asn Ser Leu Leu Leu
 35 40 45
 Ser Ile Ile Lys Ser Glu Arg Ser Leu His Glu Pro Leu Tyr Ile Phe
 50 55 60
 Leu Gly Met Leu Gly Ala Thr Asp Ile Ala Leu Ala Ser Ser Ile Met
 65 70 75 80
 Pro Lys Met Leu Gly Ile Phe Trp Phe Asn Val Pro Glu Ile Tyr Phe
 85 90 95
 Asp Ser Cys Leu Leu Gln Met Trp Phe Ile His Thr Leu Gln Gly Ile
 100 105 110
 Glu Ser Gly Ile Leu Val Ala Met Ala Leu Asp Arg Tyr Val Ala Ile

115	120	125
Cys Tyr Pro Leu Arg His Ala Asn Ile Phe Thr His Gln Leu Val Ile 130 135 140		
Gln Ile Gly Thr Met Val Val Leu Arg Ala Ala Ile Leu Val Ala Pro 145 150 155 160		
Cys Leu Val Leu Ile Lys Cys Arg Phe Gln Phe Tyr His Thr Thr Val 165 170 175		
Ile Ser His Ser Tyr Cys Glu His Met Ala Ile Val Lys Leu Ala Ala 180 185 190		
Ala Asn Val Gln Val Asn Lys Ile Tyr Gly Leu Phe Val Ala Phe Thr 195 200 205		
Val Ala Gly Phe Asp Leu Thr Phe Ile Thr Leu Ser Tyr Ile Gln Ile 210 215 220		
Phe Ile Thr Val Phe Arg Leu Pro Gln Lys Glu Ala Arg Phe Lys Ala 225 230 235 240		
Phe Asn Thr Cys Ile Ala His Ile Cys Val Phe Leu Gln Phe Tyr Leu 245 250 255		
Leu Ala Phe Phe Ser Phe Phe Thr His Arg Phe Gly Ser His Ile Pro 260 265 270		
Pro Tyr Ile His Ile Leu Phe Ser Ser Ile Tyr Leu Leu Val Pro Pro 275 280 285		
Phe Leu Asn Pro Leu Val Tyr Gly Ala Lys Thr Thr Gln Ile Arg Ile 290 295 300		
His Val Val Lys Met Phe Cys Ser 305 310		

<210> 103

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 103

ccccatactg tggatcatgg caaat

25

<210> 104

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 104
 ggctcatcat tgtgccttgc aaag 24

<210> 105
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 105
 ctcattcattg tgccttgcaa aggc 24

<210> 106
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 106
 gactaaatga tggacaacca ctctagt 27

<210> 107
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 107
 agctaattctt tcaggagttg acagc 25

<210> 108
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 108

caatgatgga aatagccaat gtgag 25

<210> 109
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 109
gagtctctaa atttgcgcca gctt 24

<210> 110
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 110
agctgtggac catctcttca gaactct 27

<210> 111
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 111
ctcacctgga ggcccgactc 20

<210> 112
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 112
tgctcttccc tctgtgetca gc 22

<210> 113
<211> 26

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 113
 gatggcctca gctactaacc tgagac 26

 <210> 114
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 114
 gtcagcctcc aatatcacct taaca 25

 <210> 115
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 115
 cctctacata tcctttcttg ggaatac 27

 <210> 116
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 116
 ccatggaggc tgccaatgag tctt 24

 <210> 117
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:

oligonucleotide primer

<400> 117
agttgccagt gtgggtgatg cagt 24

<210> 118
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 118
atgggtgaac cagtcctaca cagatg 26

<210> 119
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 119
gttcagtgtc ggctgccaat c 21

<210> 120
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 120
tctctgtttc ctcagggatt gagaaag 27

<210> 121
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 121
tctacactcg gggcaaccac aatt 24

<210> 122
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 122
attatggaaa cacagaacct cacagtg

27

<210> 123
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 123
tctccgttct tgcttttctc tttcttc

27

<210> 124
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 124
atggctggat ctctattccc ttctgct

27

<210> 125
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 125
ctgtgggctt tatgtccaaa acttcct

27

<210> 126
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 126
 gtctcacctc acactgggtct tc 22

<210> 127
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 127
 catctttctg tatgtcaggc ctggca 26

<210> 128
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 128
 ctgacttgca cagagtgagc tt 22

<210> 129
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 129
 catagctgac acccacctac at 22

<210> 130
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 130
cacccatgta cttcttcctg ggcaat 26

<210> 131
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 131
actgcagtca tggttaccaa ga 22

<210> 132
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 132
catagctgac acccacctac at 22

<210> 133
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 133
cacccatgta cttcttcctg ggcaat 26

<210> 134
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 134
ctgcagtcac ggttaccaag at 22

<210> 135

<211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 135
 aaggcctttc agcctctaca 20

 <210> 136
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 136
 tctgccctg tagcactgtt ttaactg 27

 <210> 137
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 137
 cccctttctc aatcccttta t 21

 <210> 138
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 138
 atgggaaaca ccatcatcat ag 22

 <210> 139
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 139
tggtcatagc tgacacccac ctacat 26

<210> 140
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 140
aattgcccag gaagaagtac at 22

<210> 141
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 141
tgattgtctg tgtggataaa cg 22

<210> 142
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 142
tcttcctcag ccacctctct accctg 26

<210> 143
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 143
ttatggttgt gaccaggatc tc 22

<210> 144
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 144
 cattgtgatt gtctgtgtgg at 22

 <210> 145
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 145
 tcttcctcag ccacctctct accctg 26

 <210> 146
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 146
 ttatggttgt gaccaggatc tc 22

 <210> 147
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 147
 ggctgtggtg tctctgtttt ac 22

 <210> 148
 <211> 26
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 148

catcttcatg tatctccagc cagcca

26

<210> 149

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 149

ctatgaactt gccctgctca t

21

<210> 150

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 150

agggcaagtt catagctctg tt

22

<210> 151

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 151

ctacaccgta gtcactcctg cgctga

26

<210> 152

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 152 cgtgttcctc aggggtgtaaa ta	22
<210> 153 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 153 agtcacttca cctgcaagat cct	23
<210> 154 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 154 ccgcatgcca gcttcagcac tg	22
<210> 155 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 155 cttcgctgac cgacgtgtt	19
<210> 156 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 156 acaaccccat gtacttcctt ct	22

<210> 157
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 157
 agcaacctct ccctcatgga catctg 26

 <210> 158
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 158
 ggggtttccag gaaattgtct ag 22

 <210> 159
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 159
 ttttatggga caatctcctt ca 22

 <210> 160
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 160
 tgtacttcaa acccaaggcc aaggat 26

 <210> 161
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 161
 gaacaatgcg acagtcttat cc 22

<210> 162
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 162
 cacaactgtg gtcattcttt ca 22

<210> 163
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 163
 ccctcatgtc cacatcctcc ttacca 26

<210> 164
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 164
 ggtgggaaga gcagatagaa at 22

<210> 165
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 165

taacacatcc aactgccttc tt	22
<210> 166	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:	
oligonucleotide primer	
<400> 166	
aggcctggaa cacctgcaca tct	23
<210> 167	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:	
oligonucleotide primer	
<400> 167	
ctaagcagaa agggatggag at	22
<210> 168	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:	
oligonucleotide primer	
<400> 168	
tcttcaggca gttctactgc tt	22
<210> 169	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:	
oligonucleotide primer	
<400> 169	
ctctcaggag gcccgtaca agg	23
<210> 170	
<211> 22	

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 170
 tggcacctat atgagagaca ca 22

 <210> 171
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 171
 catcatctac agcctctgga at 22

 <210> 172
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 172
 cactccgagc ccttctcatt ggg 23

 <210> 173
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 173
 cctcaggagt cactagctga ga 22

 <210> 174
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:

oligonucleotide primer

<400> 174
catcatctac agcctctgga at 22

<210> 175
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 175
cactccgagc ccttctcatt ggg 23

<210> 176
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 176
cctcaggagt cactagctga ga 22

<210> 177
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 177
gaggagaatg ctgctgatgt ac 22

<210> 178
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 178
tggtctcata cacagtgatg tcgcca 26

<210> 179
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 179
ccagctgttg tgaagttggt at 22

<210> 180
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 180
ggcagaagaa tcagacctct ct 22

<210> 181
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 181
acttcacacct tgaggggctc ttcgat 26

<210> 182
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 182
gagaaaagga aaaggtgggt aa 22

<210> 183
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 183
 ctcatctggg agcaagagaa 20

<210> 184
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 184
 acttgtgggt cccacctcac ggt 23

<210> 185
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 185
 aggcaccaaa ccaaagaga 19

<210> 186
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 186
 ggctacttgt acaatggaat gg 22

<210> 187
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

<400> 187 caagccacag aaccaacgat aatgca	26
<210> 188 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 188 tcaaccatca tgaaccctag ag	22
<210> 189 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 189 gatgctcaac ttctggtctt tg	22
<210> 190 <211> 26 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 190 catcctccct ggaaatttcc tcatca	26
<210> 191 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: oligonucleotide primer	
<400> 191 cagggctctga ctttatggtg aa	22
<210> 192	

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 192
 gatgccaatc tctctggtat ca 22

 <210> 193
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 193
 aaccagaaaa tgcccagcac agtg 24

 <210> 194
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 194
 ctgtcacaga cttaggcctt tg 22

 <210> 195
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide primer

 <400> 195
 gtctccatgg ctggatctct at 22

 <210> 196
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 196
tcccttctgc ttcattctacc tgacag 26

<210> 197
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 197
tacaaatgac gtggagaatg gt 22

<210> 198
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 198
gtgaatttgt tctcgtgagc tt 22

<210> 199
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 199
ccctgtccac tgagcttcag gctcta 26

<210> 200
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 200
tggtcaagaa aaggagaaac ag 22

<210> 201
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 201
atttggtctc gtgagcttct ca 22

<210> 202
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 202
ccctgtccac tgagcttcag gctcta 26

<210> 203
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 203
cattgcccac taaagtaacc aa 22

<210> 204
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 204
ttccacaaca tccttgata ac 22

<210> 205
<211> 26
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 205

ccccgatctg ttggttcta actcca

26

<210> 206

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 206

tactgatacc tcccatgctc aa

22

<210> 207

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 207

gattttgaga gctgtgcttc ag

22

<210> 208

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 208

cctcaaagct tttagcacac gtgcct

26

<210> 209

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide primer

<400> 209

agccaagatg acacagatat gg

22